



# Maryland Plan To Eliminate

# Minority Health Disparities

*A Healthier Future  
For All Marylanders  
2006 -- 2010*

**Preliminary  
Copy**



S. Anthony McCann  
*Secretary*

Carlessia A. Hussein, RN, Dr. PH  
*Director*





STATE OF MARYLAND

DHMH

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Maryland Department of Health and Mental Hygiene  
201 W. Preston Street • Baltimore, Maryland 21201

Robert L. Ehrlich, Jr., Governor – Michael S. Steele, Lt. Governor – S. Anthony McCann, Secretary

Dear Maryland Public Health Partners:

The Department of Health and Mental Hygiene is pleased to present this first *Maryland Plan to Eliminate Minority Health Disparities*. Maryland is the sixth most diverse state in the nation and is approaching an ethnic majority. Our minority populations carry a disproportionately heavy burden of illness, disease and untimely death, much of which is preventable.

The Maryland Health and Health Disparities Initiative, begun in 2004, uses the attached Plan to heighten awareness and increase focus on measures to reduce health disparities among ethnic/racial and other vulnerable groups in the state. The department has gathered over 1,000 comments and recommendations from stakeholders throughout Maryland, including remote and distant corners of the state. These individuals have commented on how health disparities are impacting their lives and have suggested a variety of steps to bring quality care to their families and communities.

This first Plan covers health professional education, health disparities data, resources for reducing disparities, and access to quality healthcare, but is not exhaustive in its present form. While it sets the stage for the documentation of health disparities and points to best practices, it is a work in progress. We pledge continued efforts to improve and broaden its scope, making it a framework for action that will serve our entire health delivery system. We ask that you use this Plan to chart a course in Maryland, where health services are designed to ensure that quality services are delivered to every person in every jurisdiction.

Sincerely,

*S. Anthony McCann*

S. Anthony McCann  
Secretary





Maryland Department of Health and Mental Hygiene

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# Maryland Plan To Eliminate Minority Health Disparities

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## Minority Health and Health Disparities

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The dedicated and committed staff in the DHMH Office of Minority Health and Health Disparities and former staff members who all worked together as a team to produce this Plan.

The four statewide Health Disparities Planning Committee Co-Chairs and members who sought input from broad sectors of the state. Their names are listed in the Appendices.

Health Resources Solutions, Inc. and its President, Ms. Venessa Hadley who assisted the department by working with staff and committee members to produce the first draft.

Maryland citizens who attended six Town Hall Meetings held in diverse and distant areas of the state to accommodate minority, rural and remote communities.

Maryland citizens who attended three Annual Minority Health Disparities Conferences where input was gathered on the extent of health disparities and suggestions for closing health gaps were made.

Maryland minority citizens who attended five focused Minority Health Roundtables and made suggestions specific to the perceived needs of these groups.

Local health department staff who traveled to meetings throughout the state to participate and lend their assistance.

The Maryland academic community, from which many faculty, staff and students participated and provided assistance on how Maryland might reduce health disparities.

Minority Outreach and Technical Assistance grantees that brought their expertise and advice to aid Maryland in reflecting the interest of minority groups.

All those persons who contributed to the development and review of this Plan.



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## I. EXECUTIVE SUMMARY

The 2006 *Maryland Plan to Eliminate Minority Health Disparities* is offered as a beginning dialogue on the causes, solutions and challenges faced by the state. This Plan represents a coordinated effort of the public, health professionals, academia, community health groups, interest groups and the Department of Health and Mental Hygiene. The single most important feature of this Plan is the compilation of public comment from over 1,200 citizens. Although there have been other reports on minority health in Maryland, this Plan is the first to address *minority health disparities*.

In this Plan, *minority health disparities* are defined as differences in the incidence, mortality, and burden of diseases and other adverse health conditions that exist among the historic disenfranchised minority groups in the state.

The Introduction explains that the Plan is prepared because disparities are costly in human and economic terms, targeted efforts do work, the public discourse must get started, and finally, the Plan is mandated by Maryland legislation. The objectives of the plan are to begin the documentation of health and healthcare disparities and to provide policy makers and researchers with a framework for research and decision-making. The methods used included (a) examination of a broad array of research literature, reports, data and best practices and (b) acquisition of public input from many communities and groups in a variety of jurisdictions in Maryland.

The Overview of Health Disparities section introduces concepts and issues salient to understanding minority health disparities. These concepts and issues include human biology and behavior, the social and physical environment, institutional policies and priorities and the intricacies of the nation's healthcare system. These factors interact in complex ways with implications for all levels of society. A variety of information is presented on disparities in health outcomes, and access and quality of care for racial and ethnic minorities as well as other vulnerable populations.

The Health Disparities in Maryland section examines the growing concern regarding the impact of health disparities in the state. Maryland is one of the most diverse states in the nation, ranking sixth in its diverse constituency and moving toward an ethnic majority. Maryland ranks fourth among states in the U.S. in the percent of population that is African American [1]. A number of diseases and risk factors are presented that represent major health disparities in Maryland. Maryland's success in reducing cancer mortality disparities is presented as one example of a best practice that is working.

The Challenges and Solutions to Eliminating Minority Health Disparities in Maryland section identifies the following challenges: limited access to quality healthcare, inconsistent source of quality healthcare, insufficient minority representation in the health workforce, insufficient cultural competency in the health workforce and the health institutions, and incomplete and inconsistent data on health disparities. A striking challenge is the lack of an integrated state policy and state priority on moving all institutions to implement immediate action agendas. Solutions are organized under similar headings, including fostering statewide

collaborations, assuring access to quality healthcare services, diversifying the healthcare workforce and providing cultural competency training, improving data systems for identifying and tracking disparities, and identifying resources to accomplish all of these objectives. This section presents a summary of the many ideas recommended by citizens throughout the state's jurisdictions. The actual unedited recommendations are listed in the Appendices.

The Conclusions and Future Plans section present the next steps that Maryland needs to accomplish to move from the Plan to an Action Agenda that provides a starting point for the public and private sectors and for a cross section of communities and population groups. This section also contains a request for input in the ongoing development of a comprehensive set of specific *commitments to action* by various stakeholders to eliminate minority health disparities in Maryland.

The Appendices contain figures, tables, a timeline of events, a Minority Population Map, recommendations, Web links and a Glossary of Terms.

## II. INTRODUCTION

This Plan, the first on the elimination of minority health disparities, is intended to promote dialogue across Maryland on the causes, solutions and challenges faced by the state. The Plan is a consensus-based document. The Office of Minority Health and Health Disparities (MHHD) within the Maryland Department of Health and Mental Hygiene (DHMH) undertook a major effort to obtain input and discussion among a large segment of groups and individuals with a professional or personal concern about health disparities. While this Plan builds on past Maryland minority health initiatives, it differs by providing a framework for developing action steps to eliminate minority health disparities.

### **What are “Disparities”?**

In order to assess the disparities in health in Maryland, it is necessary to look at health outcomes, care and treatment, and the supporting system; therefore, for this report disparity is defined in the context of burden and care.

A health disparity can be defined as a difference in the burden of illness, injury, disability, or mortality between one population group and another [2].

A healthcare disparity can be defined as differences in insurance coverage, access to or quality of healthcare services [2].

The causes of these disparities are myriad and complex, and may emerge from any number and combination of patient, healthcare system, and societal factors. This first *Maryland Plan to Eliminate Minority Health Disparities* addresses both types of disparities.

### **Why a Maryland Plan to Eliminate Minority Health Disparities?**

First, there is a fundamental principle that all of our nation’s citizens have a human right to healthcare of equally high quality regardless of racial or ethnic background [3]. It is time to correct the imbalance in health; if we fail to act we put the entire state at risk. Because racial and ethnic minority groups are expected to comprise an increasingly larger proportion of the national and state population in coming years, the future health of Maryland will be greatly influenced by our success in improving the health of these groups. A positive health status provides the foundation for success in school, employment, business, and a healthy Maryland.

Second, the elimination of minority disparities in health and healthcare has personal and economic benefit for the individual citizen and the state. Health disparities have a negative economic and social impact. For the groups affected, health disparities result in premature death, disability, disease, and a diminished quality of life. Economically, the diminished health status that is often the result of healthcare disparities jeopardizes productivity and viability in the workplace. This Plan is the foundation of research that will expand our understanding of the economic implications of racial and ethnic health disparities in the state.

Third, improvement is possible. There are reassuring findings demonstrating that targeted efforts significantly reduce disparities. *The National Healthcare Disparities Report* [4] highlights targeted activities that are associated with reductions in disparities of both health status and healthcare. An example of Maryland's success reducing the cancer mortality disparity is presented in the Health Disparities in Maryland section of this Plan.

Fourth, this report makes an important contribution to the public discourse on minority health and healthcare delivery by presenting a statewide overview of health disparities related to race, ethnicity, gender, and jurisdiction in Maryland. Although, this report is not designed to measure the progress of any one program or policy, the data and information presented provide suggestions for performance measures to monitor the state's progress toward optimal health for all its citizens.

Fifth, Maryland legislators have recognized the significance of the impact of health disparities on the citizens of Maryland, and passed House Bill 883 (in 2003) and House Bill 86/Senate Bill 177 (in 2004) which have directed the department to develop and implement a Plan to reduce health status and healthcare disparities based on gender, race, and ethnicity.

## **What are the Objectives of the Plan?**

The purpose of this Plan is to provide information to assist Maryland's communities in planning and implementing ways to reduce minority health disparities. This purpose will be met through the following objectives:

- To document health and healthcare disparities in Maryland by race, ethnicity, and gender. This report examines the burden of illness and death as well as the quality of healthcare for minority and majority residents of Maryland.
- Present information that should assist policymakers and researchers in their attempts to determine focus areas in disparity, monitor trends, and to identify successes in reducing disparities.
- Identify areas for improvement in data collection that should suggest the need for systematic collection and analyses of health and healthcare data by racial/ethnic groups, including important subgroups. Complete and accurate data is essential for targeting efforts to eliminate health disparities.
- Provide baseline data from which others may be able to measure the state's initiatives to reduce health and healthcare disparities

## **What are the Targeted Racial/Ethnic Groups?**

The target groups in the legislation are the African American, Hispanics/Latino, Asian/Pacific Islander, and American Indian communities in Maryland. This Plan relies on the racial and ethnic categories specified by the federal Office of Management and Budget in 1997 for the collection of federal data [5].

## **What Methods Were Used to Develop the Plan?**

The methodological approach of the Plan was to 1) examine a broad array of research literature, reports, and data from a variety of sources; 2) seek public input through roundtable discussions, town hall meetings, conferences, and MHHD Web site contacts; and 3) confer with health professionals, researchers, and policymakers for identifying significant issues and areas of focus. This approach ultimately leads to shared agenda setting, an important component of community-centered health promotion [6]. Bringing together consumers, community groups, advocacy organizations, and public health experts allows the participation and influence of non-academic entities in the process of creating knowledge related to the social and cultural dynamics of a given health issue and allows the integration of knowledge gained with action to “improve the health and well-being of community members” [6].

Outreach activities to solicit input for the Plan included three statewide conferences; five roundtable discussion groups; and six town hall meetings attended by more than 1,200 individuals statewide. MHHD received comments and recommendations over the course of a two-year period. Secretary S. Anthony McCann presided over the annual conferences and facilitated each health roundtable.

### **Expert Health Disparities Planning Committees**

Four working committees served as a resource to MHHD to provide advice and guidance in identifying key information sources, provide recommended goals to eliminate minority health disparities, and to ensure that key community and professional perspectives were represented. The four focus areas were: Health Profession Education, Identifying Funding Strategies, Access to Quality Healthcare Services, and Measuring Health Disparities. The four statewide committees included over 300 health professionals, advocates, academicians, public health workers, faith-based organization members, and minority health researchers working over a six-month period. Goals set by the legislation guided the work of the committees. Lists of participants for each of the four working committees are in the appendices.

### **Town Hall Meetings**

Six town hall meetings were held from July through September, 2005 at Frederick in Western Maryland, Waldorf in Southern Maryland, Salisbury on the Lower Eastern Shore, Denton on the Upper Eastern Shore, Rockville in the National Capital area, and Baltimore City in Central Maryland. Participants were concerned citizens, as well as representatives from community and consumer groups, health activists, faith-based groups, and local health departments.

### **Racial/Ethnic Focused Health Roundtables**

A series of five health roundtables were conducted from 2004 to 2006. The roundtables targeted American Indians/Native Americans (two forums), Hispanic/Latinos, African Americans, and Asian/Pacific Islanders. The roundtable discussions offered brief introductory information leading to an open forum. The community input was documented by note taking, and in some cases, audio taping. Participants were asked to comment on the health concerns and experiences in their communities. Participants included ethnic/minority community and consumer groups, tribal leaders, health providers, health professionals, health advocates, immigrant service providers, government officials, and health professions organizations.

### **Annual Health Disparities Conferences**

MHHD sponsored three statewide Annual Health Disparities Conferences in 2004 through 2006. Over 200 people attended each conference and provided comments and suggestions on eliminating health disparities in Maryland and in the nation. Participants represented local health departments, academic health centers, community and consumer groups, healthcare providers, health professional organizations, other state health departments, and federal health policy agencies.

### **MHHD Web site**

MHHD Web site provided an e-mail access under “Your Role” for public input regarding the Plan. The general public was invited to help develop the Plan by utilizing the Web site to offer suggestions, examples of best practices, ideas to improve health services for racial/ethnic minority groups.

### **Minority Outreach and Technical Assistance (MOTA)**

Minority Outreach & Technical Assistance, (MOTA) was another means to receive comments. MOTA funds community-based, grass-roots, faith-based organizations to provide outreach services statewide for racial and ethnic minorities and women. MOTA grantees and MOTA program participants offered comments and suggestions for the Plan.

The Office of Minority Health and Health Disparities continuously reached out to diverse communities in the state of Maryland in eliciting perceptions, experiences, needs and preferences of all healthcare stakeholders. Over 1,000 recommendations and comments have been received through these various outreach efforts to collaborate with a cross section of Maryland communities and stakeholders. The appendices contain a composite set of recommendations raised during the public forums and represent concerns of each target racial/ethnic group.

### **III. OVERVIEW OF HEALTH DISPARITIES**

This section of the Plan introduces concepts and issues important to understanding and discussing minority health disparities.

An examination of trends in the nation's health provides essential information for assessing health disparities and healthcare disparities. This Plan compiles data from a variety of sources to describe health disparities for racial and ethnic minorities and other vulnerable populations compared to White, non-Hispanic individuals in America. Based on this information it has become apparent that racial and ethnic minorities experience more barriers in accessing care, receiving quality care, and suffer a greater burden of morbidity and mortality than do Whites.

This section presents information on the proposed causes of health disparities (including social inequity and lifestyle behaviors), the impact of disparities, selected disparities in disease morbidity and mortality, unequal access to healthcare, and quality of care. Specifically, the morbidity and mortality segments present health disparities for selected health conditions across race and ethnicity as well as gender. National data is used here (Section IV uses Maryland specific datasets) to illustrate these concepts and issues. The healthcare access segment refers to obtaining care from the healthcare system through insurance as well as having a regular source of care. Disparities in quality of care relate to issues such as doctor-patient communication, delivery of services, workforce diversity and cultural competency.

To aid in the understanding of the impact of health disparities, and to help policymakers in targeting interventions, this Plan includes information on other populations vulnerable to health disparities and healthcare inequity. In Section III and IV, there are discussions on gender health issues, low income groups, immigrants, underserved areas e.g. rural and inner city, and those suffering with mental illness.

#### **Historical Overview**

Over the decades, agencies of the U.S. Department of Health and Human Services (DHHS) have established initiatives targeting minority (in most cases, Blacks) health and related issues, such as health disparities. One such effort is the 1985 Secretary's Report on Black and Minority Health under Secretary Margaret Heckler, documenting large and consistent gaps in health status between African American and White U.S. populations. The report estimated that approximately 60,000 excess minority deaths were attributable to health disparities [7]. With the elimination of minority health disparities as a major national concern, the U.S. Department of Health and Human Services established the Office of Minority Health in 1986. Furthermore, in Healthy People 2010, DHHS established a national goal to eliminate health disparities by the end of the decade [2].

As the momentum to address health disparities continued, Congress requested the Institute of Medicine (IOM) to assess the extent of disparities in the types and quality of health services received by U.S. racial and ethnic minorities and non-minorities. The resulting landmark study, "Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care", found

systemic, persistent differences in the quality of care persons of color received, even after insurance status, socioeconomic status, patient preference, severity of disease, and coexisting medical conditions were taken into account[8]. Moreover, the report found that “bias, prejudice, and stereotyping on the part of healthcare providers may contribute to differences in care.” Thus, in order to assess the impact of health disparities in the United States, it is important to look not only at health outcomes, but also at measures of care and the infrastructure that supports them so that progress may be made in understanding causes and in finding solutions.

## **What is a Disparity?**

In the 2003 National Healthcare Disparities Report the lack of consensus on the definition of disparity was noted. “Disparity” in health outcomes, health status, and healthcare has been defined in several ways. In terms of health outcomes and treatment, it is important to make a distinction between a health disparity and healthcare disparity; health disparity deals with health outcomes and illness burden, while healthcare disparity is related to conditions of access, treatment, and quality.

Healthy People 2010 defines “disparity” as “all differences among populations in measures of health and health care[9].” While the IOM’s Unequal Treatment has a more limited definition of healthcare disparity as “ racial or ethnic differences in the quality of healthcare that are not due to access-related factors or clinical needs, preferences, and appropriateness of intervention [8].”

Within this document, a health disparity can be defined as a higher burden of illness, injury, disability, or mortality experienced by one population group in relation to a reference group; and a healthcare disparity can be described as differences in, for example, coverage, access, or quality of care [2].

## **Who is the Target Population?**

In this Plan minority is defined as members of the following groups: African American, American Indian, Hispanic, and Asian/Pacific Islander. This definition of minority groups is based on House Bill 86, from the 2004 Maryland Legislative session [10]. In addition, this Plan recognizes that health disparities extend beyond racial and ethnic definitions alone. Groups that have faced discrimination because of underlying differences in social status can also lead to disparities in health and healthcare [11]. These groups are considered “vulnerable populations” and include individuals with stigmatizing health conditions such as mental illness, recent immigrants and refugees, women and men, and incarcerated populations [11].

Most of the statistics collected are based on standard Office of Management and Budget (OMB) categories. OMB makes a distinction between race and ethnicity. The term “race” is an inexact socio-biological category, but commonly accepted; “ethnicity” is used to describe groups with a common cultural or language heritage but can, as in the case of Hispanics and Asians, mask significant differences by country or culture of origin. Where possible, an effort has been made to report figures for Non-Hispanic White and Non-Hispanic African Americans in order to

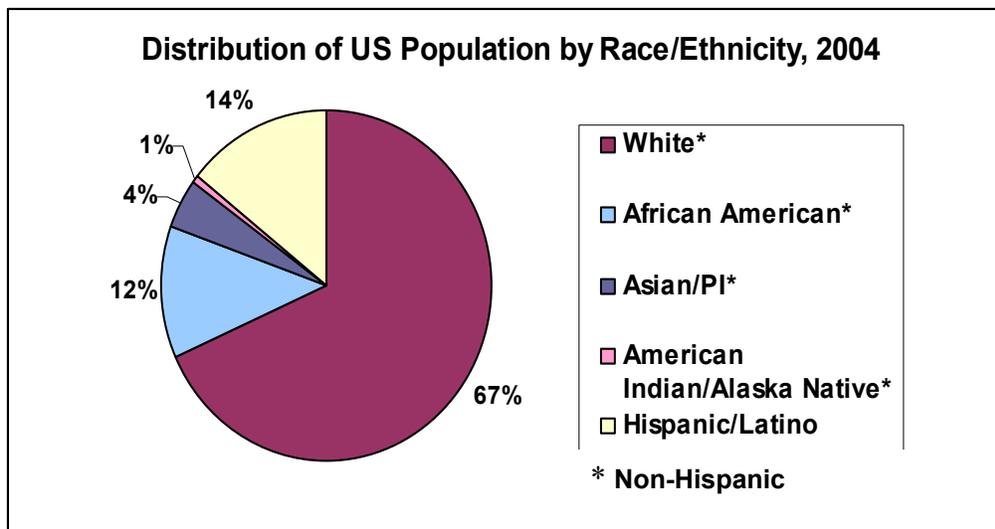
separate race from ethnicity. OMB uses the term “Black” rather than “African American,” and distinguishes between Hispanic and Non-Hispanic White and Black populations. In this document, however, the term “African American” is used.

## National Demographics

Efforts to improve the health of the nation will undoubtedly be influenced by important changes in demographics [12]. The United States population has become progressively more diverse due to recent increases in Hispanic and Asian populations. Currently, one in three Americans are either foreign born or members of ethnic/racial minority groups. If this trend continues, racial and ethnic minorities will represent half of the U.S. population by 2050 [13]. Importantly, ethnic and racial minority groups have a much younger mean age than Whites and by 2050 will account for nearly 90 percent of the total population growth [13].

As seen in Figure 1, fourteen percent of Americans identified themselves as Hispanic, 12 percent as African American, and 4 percent as Asian [12].

**Figure 1: Distribution of Population by Race/Ethnicity: US, 2004**



**Source: Adapted from National Center for Health Statistics, Health United States, 2005 With Chartbook on Trends in the Health of Americans. Hyattsville, Maryland: 2005 [12].**

Immigration is an integral part of the history of the United States and the rich fabric of its society. Analysis from 2005 Census Bureau data illustrates that there are 35.2 million immigrants (documented and undocumented) living in the U.S. Currently, immigrants account for 12.1 percent of the total population in the U.S., the highest percentage in eight decades [14]. As this transformation of the nation’s demographic occurs it will be critically important that improvements in health are equally distributed among all groups.

## **Causes of Health Disparities**

Disparities occur when resources are inequitably distributed across communities and groups. Social inequities directly affect the resources required to maintain health. The effects of social conditions such as income, education, occupation, family structure, service availability, sanitation, exposure to hazards, social support, racial discrimination, access to healthcare, and education, play a pivotal role as health indicators [15, 16]. The social determinants of socioeconomic status, environment, and behavior cause major differences in health outcomes such as longevity and an increase in preventable illnesses. Additionally they determine who gets seen by the healthcare system and when, and the quality of treatment received.

### **Socio-economic Factors**

Data indicate that socioeconomic status (SES), -- whether measured by level of education, level of income or occupation--, health status, and race/ethnicity are linked together in a web of factors that all contribute to poor health [16, 17]. Researchers have made an effort to untangle the confounding effects of health, race and SES [18]. However, even when SES factors are controlled there is still a disparity in clinical outcomes for minorities [8].

### **Physical Environment**

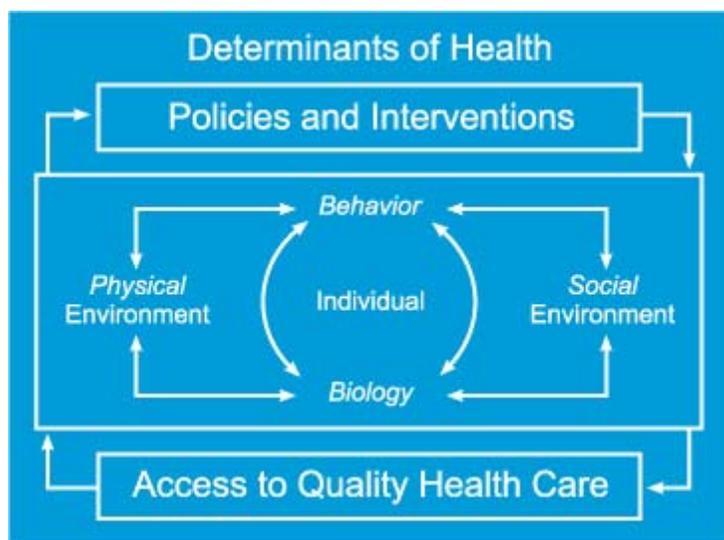
The environment in which low-income individuals and minority groups live has a large impact on health conditions [19]. Residents of inner cities may lack access to medical care, parks for safe exercise, grocery stores or outlets with healthy food options. In addition, economically disadvantaged populations are more likely to reside in old houses containing lead pipes and lead-based paint, and to live in neighborhoods with higher concentrations of liquor stores and fast-food establishments [19].

### **Lifestyle and Behavior**

Lifestyle behaviors are also associated with adverse health outcomes. Minority men with lower incomes and less education are more inclined to smoke, and use alcohol and drugs than those with higher incomes and more education [20]. Other studies show that tobacco products and alcohol are marketed more aggressively in low-income, minority communities [21]. Stress is another powerful determinant of health that manifests through behavior, socioeconomic status and environmental factors [20].

Each of these factors work together and along multiple pathways to affect health outcomes. These social determinants: socioeconomic, environmental, and behavioral all contribute to a bleak picture of overall life expectancy and health for minorities in this country. Figure 2 is a model on the factors that contribute to poor health.

**Figure 2: Determinants of Health**



Source: Healthy People 2010: Understanding and Improving Health [9].

## Impact of Health Disparities

Disparities have a significant impact on the individual, healthcare system, and society. The notion of inequities undermines the trust needed between patient and provider; thereby potentially having negative impact on treatment and compliance. Health disparities result in premature death, disability, and a diminished quality of life. The lower quality of healthcare that is often a result of healthcare disparities jeopardizes productivity and viability in the workplace. This workplace loss may result in hindered economic and social advances for members of groups affected by disparities. Employers that contribute to reducing health disparities may decrease their direct and indirect costs for preventive, diagnostic and treatment services for chronic health problems such as heart disease and cancer before they develop, or treat them appropriately once they have manifested. Improving the quality of health that employees receive reduces the employer's annual health expenditures [22]. Additionally, the U.S. Bureau of Labor Statistics predicts that over the next decade racial and ethnic minorities will account for over 36 percent of the workforce, and an investment in their health will be vital to a thriving economy. Eliminating health disparities will provide our nation with citizens having better health, thus, greater potential to participate fully in school, employment, and the responsibilities and benefits of society.

## Data Collection in Minority Health Disparities

Data collection and analysis are vital to efforts to eliminate racial and ethnic disparities in health and healthcare. Data are crucial to understanding current trends in health outcomes in order to create targeted, effective solutions at federal, state and local levels. Generally, the methodological approach to determining minority health disparities is to examine an array of measures from a variety of data sources, standardize data and comparisons, and apply uniform and rigorous thresholds for identifying significant differences [4]. The data sources are most often vital records, (births and deaths), surveys (health and Census), and healthcare utilization

(insurance and hospital records). These data sources can reveal which health conditions are prevalent in particular populations, population risk factors, and the type and quality of healthcare received. Furthermore, these sources can help track the progress of reducing disparities over time.

The terms ‘mortality rate’ and ‘morbidity’ are generally used as measures of health disparities. Mortality rate is the rate of occurrence of death in a defined population during a specified time interval [23]. Morbidity refers to the extent of illness, injury, or disability in a defined population [24].

## **Health Disparities in Mortality and Morbidity**

As mentioned earlier in this document, it is important to distinguish between a healthcare disparity and a health disparity. While the former deals with access to care and quality of care received, the latter refers to a higher burden of illness, injury, disability, or mortality experienced by one population group in relation to another [2].

In 2003, the overall mortality (death) rate in the United States for African Americans was 30 percent higher than for Whites [12]. For the top three leading causes of death for all races and ethnicities (heart disease, cancer, and stroke), African Americans suffer greater rates of mortality than their White counterparts [25]. Table 1 contains age-adjusted death rates and death ratios for the 10 leading causes of death. This table provides a foundation for further discussion of differences in health outcomes among various racial groups and serves as a comparison to Maryland state data (see Section IV: Health Disparities in Maryland). A comparison of the mortality ratios between minority groups and non-Hispanic Whites show large disparities for specific diseases.

The mortality ratios for chronic liver disease and diabetes for American Indians and Hispanics compared to non-Hispanic Whites shows a large mortality disparity [25]. Overall mortality rates are higher for African Americans than non-Hispanic Whites; in particular, African Americans have 10 times the rate of death from HIV than non-Hispanic White [25]. Taken together, these disparities contribute to a lower life expectancy for African Americans than for Whites. A White infant born in 2004 was expected to live over five years longer than an African American infant born the same year [26].

For minority groups other than African Americans, age-adjusted overall death rates for the leading causes of death are lower than White rates. This may be due to data limitations such as misclassification of minorities on death certificates and/or the return of older foreign-born minorities to their home countries. If there is misclassification of minorities as non-Hispanic Whites on death certificates, the count of minority deaths will be too low, and the minority death rate will be underestimated. The return of foreign-born minorities to their home country in the later stages of life may also underestimate minority populations with higher percentages of foreign-born residents.

**Table 1: Age-Adjusted Mortality Rates (per 100,000) and Mortality Ratios for the 10 Leading Causes of Death, United States 2003**

Cause of Death	White, Non-Hispanic Death Rate	Black Death Rate	Black/White Ratio	AIAN Death Rate	AIAN/White Ratio	Asian/PI Death Rate	API/White Ratio	Hispanic Death Rate	Hispanic/White Ratio
All Cause Mortality	826.1	1,065.9	1.3	685.0	0.8	465.7	0.6	621.2	0.75
Diseases of heart	230.9	300.2	1.3	160.2	0.7	127.6	0.6	173.2	0.75
Malignant neoplasms	192.4	233.3	1.2	119.3	0.6	113.5	0.6	126.6	0.66
Stroke	51.7	74.3	1.4	34.6	0.7	45.2	0.9	40.5	0.78
Chronic lung disease	47.0	30.1	0.6	31.7	0.7	16.2	0.3	20.2	0.43
Influenza and pneumonia	22.0	23.3	1.1	24.1	1.1	17.3	0.8	18.4	0.84
Chronic liver disease	9.0	8.4	0.9	22.6	2.5	3.0	0.3	14.7	1.63
Diabetes	22.1	49.2	2.2	43.7	2.0	17.3	0.8	35.0	1.58
HIV	2.0	21.3	10.7	2.5	1.3	0.7	0.4	5.9	2.95
Accidents	38.8	36.1	0.9	56.4	1.5	18.0	0.5	30.6	0.79
Suicide	12.7	5.2	0.4	10.0	0.8	5.6	0.4	5.6	0.44
Homicide	2.7	21.0	7.8	7.3	2.7	2.9	1.1	7.7	2.85

**Source: Adapted from CDC, National Center for Health Statistics, Health United States 2006 [25] . People of Hispanic origin may be of any race.**

## Summary Statistics

The following series of points highlight health disparities for select diseases by minority groups compared to Whites. For the top three leading causes of death (heart disease, cancer, and stroke) minorities tend to have higher mortality rates than Whites.

### Cardiovascular Disease

- Overall, minority and low-income populations have a disproportionate burden of death and disability from heart disease.
- African Americans are 30 percent more likely to die from heart disease than non-Hispanic Whites. Despite the fact that African Americans have a lower age-adjusted prevalence of heart disease than Whites; only 10.1 percent of African Americans compared to 11.9 percent of Whites have heart disease [27].

### Cancer

- African Americans are 19 percent more likely to die from all types of cancer than Whites, adjusting for age [28].
- African American men are 50 percent more likely to die from prostate cancer than White men [28].

- For Asians and Pacific Islanders, cancer was the leading cause of death (highest number of deaths) [28].
- Asian/Pacific Islanders have higher incidence and mortality rates for stomach and liver cancer. Asian American men suffer from stomach cancer 114 percent more often than non-Hispanic White men [28].
- Cancers such as breast, corpus uteri and ovarian are a major problems among Native Hawaiians [29].

### Stroke

- African Americans are 1.5 times more likely to die from stroke compared to Whites [12].
- Since 1990, stroke mortality for Asian males and females 45–74 years of age has generally exceeded that for White males and females of that age [12].

### Chronic Lower Respiratory Disease

- Whites have higher mortality rates from chronic lower respiratory diseases (45.4 deaths per 100,000) than do African Americans (31.2 per 100,000) or other groups. Chronic lower respiratory diseases include chronic bronchitis, emphysema, and chronic obstructive disease [12].

### Influenza and Pneumonia

- Mortality from influenza and pneumonia is six percent higher for African Americans, (24 deaths per 100,000) in the U.S. compared with Whites (22.6 per 100,000 for non-Hispanic Whites) [12].

### Diabetes

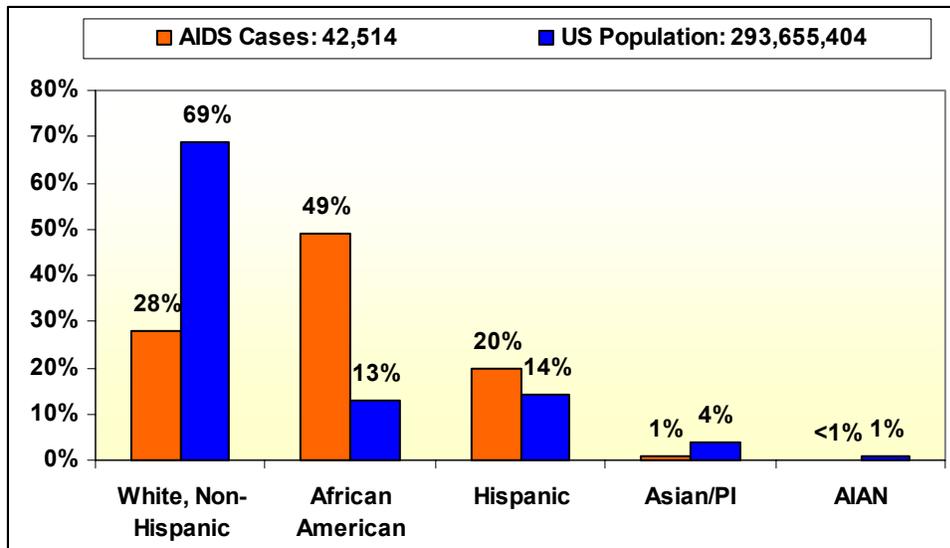
- On average, American Indian/Alaskan Natives have 2.2 times the rate of diabetes than Whites. African American adults have a 1.8 times higher rate of diabetes, and Hispanic/Latinos have 1.7 times the rate of Whites [30].
- African American women are especially affected by diabetes. When adjusted for age, African American women are more likely to be diagnosed with diabetes than non-Hispanic Whites, African American men, or Hispanics [28].

### HIV/AIDS

- Racial and ethnic populations have been disproportionately affected by the HIV/AIDS epidemic in the United States.
- While African Americans were about 13 percent of the population in 2004, they represented 49 percent of new AIDS cases in that year [31].
- Latinos made up 14 percent of the U.S. population, but represented 20 percent of all new AIDS cases as shown in Figure 3 [31].

- In 2002, HIV was the leading cause of death for African American women ages 24-34 [32].
- African Americans aged 13-19 years represented 66 percent of reported teen AIDS cases in 2003. Latino teens represented another 21 percent, for a total of 87 percent of all U.S. AIDS cases in that age group [33].

**Figure 3: Percent Distribution of Acquired Immunodeficiency Syndrome Diagnoses: US, 2004.**



Source: AIDS figure adapted from HIV/AIDS Policy Fact Sheet, The Henry J. Kaiser Family Foundation. November 2005 [31].

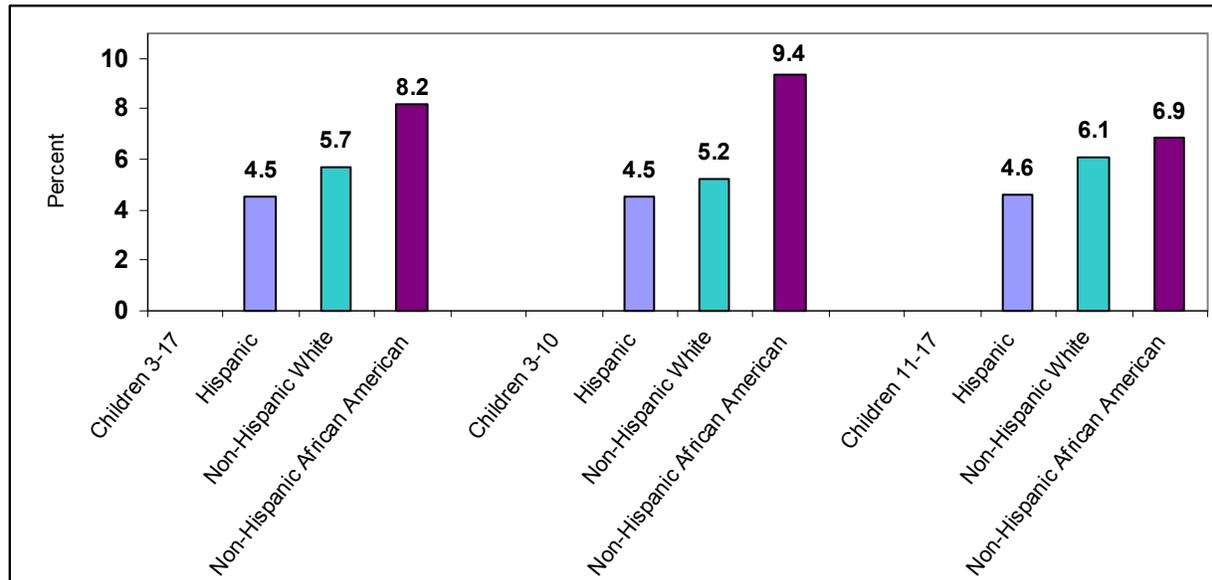
### End-Stage Renal Disease

- End-stage renal disease (ESRD) is a kidney disease that is serious enough to warrant dialysis or a kidney transplant.
- ESRD occurs almost four times more commonly in African Americans than in their White counterparts [34].
- African Americans are more likely to suffer complications from diabetes such as end-stage renal disease [28].

### Asthma

- Asthma is a leading cause of childhood illness and disability, although childhood deaths from asthma are rare.
- Non-Hispanic African American children 3–10 years of age had higher asthma attack-prevalence rates than non-Hispanic White or Hispanic children, and this disparity has been increasing [12].

**Figure 4: Asthma Attack Among Children by Age, Race & Hispanic Origin: US, 2002-2003**



**Source: Adapted from National Center for Health Statistics, Health United States, 2005 With Chartbook on Trends in the Health of Americans, Hyattsville, Maryland: 2005 [12].**

### Alzheimer’s Disease

- Alzheimer’s disease is a major public health concern affecting about 4.5 million Americans, including one in 10 people over 65 and nearly half of those over 85 [35].
- Alzheimer’s disease is more prevalent among African American than Whites with age-specific prevalence rates ranging from 14 percent to almost 100 percent higher [36].
- Alzheimer’s disease begins almost seven years earlier in Hispanics than in Whites [37].

### Infant Mortality

- Despite declining infant mortality rates for the population overall, there are large disparities in infant mortality rates among racial and ethnic groups.
- In 2003 the highest infant-mortality rates were for infants of non-Hispanic African American mothers (13.6 per 1,000 births), and American Indian or Alaska-Native infants (8.7 per 1,000). Infant mortality rates for non-Hispanic Whites were 5.7 per 1,000 live births [12].

## **Disparities in Healthcare Access and Quality**

As previously mentioned, a healthcare disparity refers to differences in insurance coverage, access, or quality of care that are not due to health need [7]. These disparities exist across diseases and settings (hospitals, dental offices, primary care clinics) and disparities in care are found by race, ethnicity, sex, age and for individuals with disabilities and other special healthcare needs. Ultimately, a reduction or elimination in healthcare disparities should help reduce health disparities seen in morbidity and mortality of minority groups compared to Whites.

The National Healthcare Disparities Report (NHDR) of 2005 by the Agency for Healthcare Research and Quality (AHRQ) found that while varying in magnitude by condition and population, disparities were observed in almost all aspects of healthcare [4]. Table 2 shows that African Americans received poorer quality of care as compared to Whites in 43 percent of the AHRQ’s core measures, while American Indians and Alaska Natives received poorer quality care than Whites in 38 percent of the core quality measures [4].

**Table 2: Percent of access and quality measures for which selected racial groups experience poorer care.**

	<b>% of measures on which this group had poorer ACCESS to care than White comparison group</b>	<b>% of measures on which this group received poorer QUALITY of care than White comparison group</b>
African Americans	50%	43%
Asians	43%	21%
American Indians and Alaskan Natives	50%	38%
Hispanic (vs. non-Hispanic White)	88%	53%
Poor	100%	85%

**Source: Adapted from National Healthcare Quality Report, 2005 [4].**

**“Poor” is defined as having family income less than 100 percent of the federal poverty level and “high income” is defined as having family income 400 percent or more of the Federal poverty level.**

## **Access to Healthcare**

Access to healthcare refers to “the degree to which people are able to obtain care from the healthcare system in a timely manner” [38]. The study of barriers in access often differentiates financial and non-financial barriers, and describes the extent to which individuals have a regular source of care. Financial barriers included whether or not an individual has insurance while non-financial barriers may refer to transportation, clinic hours and location of healthcare facilities. Having a regular source of care facilitates access to healthcare services and increases the likelihood of interacting with healthcare providers. In addition, having a regular source of care provides the entry point into the complex healthcare delivery system, particularly when specialty care is needed [39].

### Insurance Coverage

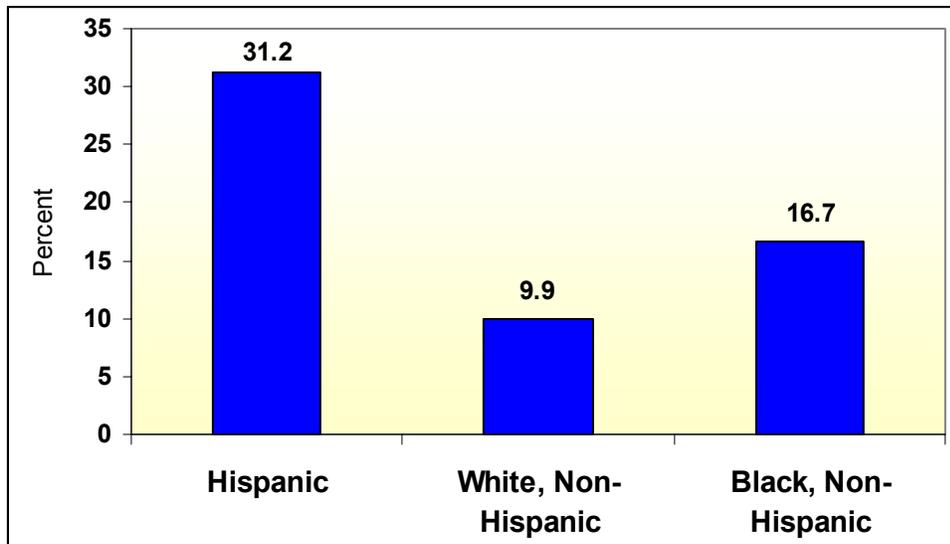
Health insurance reduces out-of-pocket expenditures and has been shown to be the single most predictive indicator of utilization. Without coverage, many people find healthcare expensive and forego care even when needed.

The presence of health insurance provides access to a range of healthcare services, from preventive care to management of chronic health conditions. The uninsured have more problems getting care, tend to be diagnosed at later disease stages, and get less therapeutic care [40]. In addition, the uninsured often postpone seeking medical care and instead rely on emergency care

to manage their day-to-day health [4]. Without coverage the uninsured are likely to die sooner and have poor health status [41].

In 2004, 45.5 million adults lacked health insurance [42]. As Figure 5 shows, Hispanics are least likely to be insured. The disparities in health insurance coverage by racial and ethnic minorities translate into disparities in access to healthcare services.

**Figure 5: Percentage of persons of all ages without health insurance coverage, by race/ethnicity: United States, January– September 2005.**



**Source:** Adapted from Early Release of Health Insurance Estimates Based on Data From the 2005 National Health Interview Survey [43].

**Notes:** A person was defined as uninsured if he or she did not have any private health insurance, Medicare, Medicaid, State Children’s Health Insurance Program (SCHIP), state-sponsored or other government-sponsored health plan, or military plan. A person was also defined as uninsured if he or she had only Indian Health Service coverage or had only a private plan that paid for one type of service such as accidents or dental care.

Additionally, Hispanic persons were more likely than non-Hispanic White persons and non-Hispanic African American persons to be uninsured, to have been uninsured for at least part of the past 12 months, and to have been uninsured for more than a year. Table 3 represents the percentage of persons who lacked health insurance coverage at the time of interview for at least part of the year and the standard degree of error.

**Table 3: Percentage of persons who lacked health insurance coverage at the time of interview, for at least part of the year, or for more than a year, by selected demographic characteristics: United States, January–September 2005.**

Selected Characteristics	Uninsured (1) at the time of the interview	Uninsured (1) for at least part of the past year (2)	Uninsured (1) for more than a year (2)
<b>Age</b>			
All Ages	14.1	17.7	10.1
Under 65 years	16.0	19.9	11.4
Under 18 years	8.8	12.6	5.3
18-64 years	18.8	22.9	13.9
65 years and over	0.9	1.2	0.7
<b>Sex</b>			
Male	15.7	19.2	11.7
Female	12.6	16.3	8.6
<b>Race/Ethnicity</b>			
Hispanic or Latino	30.6	34.4	24.7
Non-Hispanic, White	10.0	13.4	6.6
Non-Hispanic, Black	17.0	20.8	11.9
Non-Hispanic, Other/Multiple races	15.7	19.4	10.9

**Source: Adapted from Family Core component of the 2005 National Health Interview Survey. The estimates for 2005 were based on data collected from January through September [43].**

**(1) A person was defined as uninsured if he or she did not have any private health insurance, Medicare, Medicaid, State Children’s Health Insurance Program (SCHIP), state-sponsored or other government-sponsored health plan, or military plan. A person was also defined as uninsured if he or she had only Indian Health Service coverage or had only a private plan that paid for one type of service such as accidents or dental care.**

**(2) A year is defined as the 12 months prior to interview.**

Public health insurance programs have tried to provide coverage for many low-income groups. Medicaid and the State Children’s Health Insurance Program (SCHIP), both cover low-income children, but provide limited coverage for adults. However, these programs often are not enough to close the health insurance gap between minorities and Whites and do not offset the loss of the job-based coverage for adults. In 2001 39 percent of all low-income children were covered by Medicaid/SCHIP programs compared to only 18 percent of eligible parents. Some enrollment challenges include parents not knowing about their eligibility or that public programs exist. In one study of parents and children eligible for Medicaid/SCHIP, more barriers were identified by Spanish speaking parents and parents with less education [44]

Despite the importance of insurance coverage in accessing healthcare services, other non-financial barriers to care exist. Racial and ethnic minority groups also tend to live in areas with fewer providers and little or no transportation [19]. Minorities either tend to live in areas that are rural with fewer healthcare institutions or in urban areas where it may require taking multiple buses to access a hospital [45]. In addition, minorities may face other challenges in accessing healthcare such as getting time off work to visit a doctor [46].

## Regular Source of Care

While having health insurance is central to accessing care, having a regular source of care assists in getting persons into the healthcare system [4]. A regular source of care is a healthcare provider where individuals regularly go when they are sick or need medical advice. Strong evidence suggests that having a regular source of care produces better health outcomes, reduces disparities, and reduces costs [47]. Familiarity with a particular provider may also contribute to increased comfort in seeking care, getting appointments at convenient times and provide channels to specialized care.

The National Health Interview Survey of 2005 reveals that the percentage of persons with a regular place to go for medical care was 78.1 percent for Hispanics, 89.3 percent for non-Hispanic Whites, and 85.2 percent for non-Hispanic African Americans. Overall, Hispanics were least likely to have a regular place to go for medical care. Additionally, a nationally representative survey of adults in 2001 found that African Americans and Hispanics were more likely than Whites to lack a regular provider, regardless of health-insurance status [48].

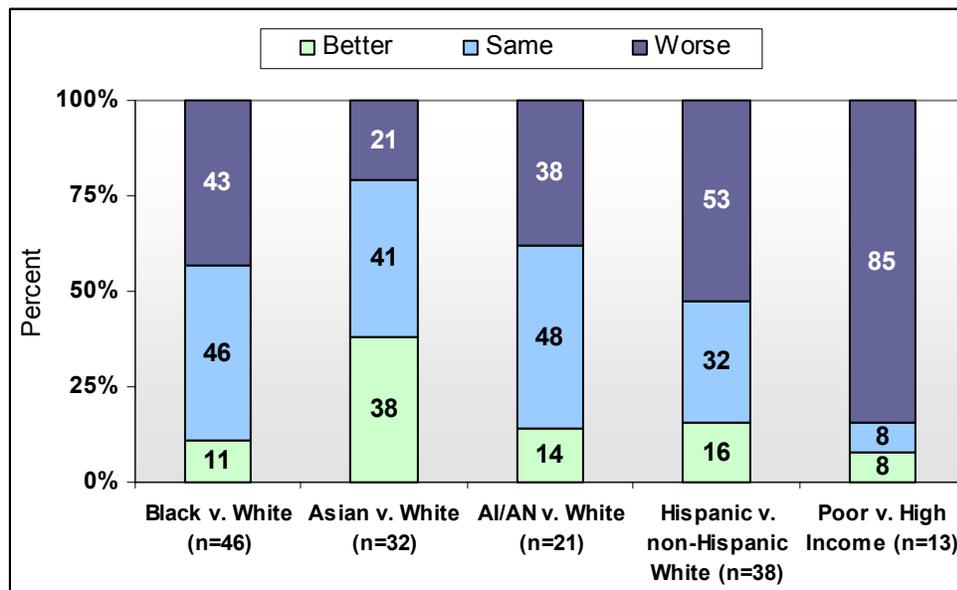
The lack of insurance, no regular source of care, and other barriers to obtaining health services effectively diminish racial and ethnic minorities' utilization of preventive services and medical treatments that could reduce burden of disease and contribute to improved health [49]. For example, despite the higher mortality and morbidity of cardiovascular disease in African Americans, they are less likely to undergo treatment and to receive high technology invasive procedures, such as cardiac catheterization [50].

## **Quality of Care**

According to the Institute of Medicine, quality of healthcare refers to the “degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge”[8].

The causes of disparities in quality of care are multiple. They are the result of a variety of factors that include doctor-patient communication barriers and lack of trust; limited cultural competence of providers; lack of minority health professionals; patients' healthcare beliefs and behavior; stereotypical thinking and biased decision-making by providers; low literacy and limited English proficiency; and lack of access to high-quality hospitals and other facilities [51]. Figure 6 shows racial and ethnic minorities still receive lower of quality of care compared to Whites.

**Figure 6: Measures of quality for which members of selected group’s experienced better, same, or poorer quality of care compared with reference group.**



**Source: Adapted from National Healthcare Disparities Report; Agency for Healthcare Research and Quality. U.S. Department of Health and Human Services. December 2005 [4].**

Cultural differences between providers and patients and resulting differences in attitudes and behaviors can negatively influence treatment, follow-up, and compliance. Specifically, patients who speak a language other than English often have limited or no access to translation services, which can contribute to the inability to communicate with providers. Even when the patient speaks English, cultural barriers may make the healthcare system difficult to navigate [52]. Additionally, time and financial constraints may limit a provider’s ability to listen to patients effectively and prompt them to rely on non-verbal observations such as race and ethnicity and other stereotypes. If a patient mistrusts the system they may withhold information and prompt the provider to succumb to stereotypes [8].

### Workforce Diversity

While minorities are increasing in the general population they remain underrepresented in the health workforce (Table 4) and as graduates of health professional schools Table 5 [53, 54].

The Association of American Medical Colleges (AAMC) defines under-represented minorities (URM) as “those racial and ethnic populations that are underrepresented in the medical profession relative to their numbers in the general populations.” Whereas African Americans, Hispanic Americans, and Native Americans, as a group, constitute more than 28 percent of the U.S. population, these three groups account for less than nine percent of nurses, six percent of physicians, and only five percent of dentists [3].

**Table 4 Race/Ethnicity Distribution within the US Population (Current and Projected) and Among Selected Health Professionals**

	US Population, %		Health Professions, %		
	2000 Census	2050 Projections	Medicine	Dentistry	Nursing
White, non-Hispanic	69.4	50.1	51.0	86.0	86.6
Asian/Native Hawaiian/Pacific Islander	3.7	8.2	8.6	7.0	3.7
Black	12.3	14.6	2.4	3.4	4.9
Hispanic	12.5	24.4	3.3	3.3	2.0
Native American/Native Alaskan	0.9	1.8	0.05	0.1	0.5
Non-URM totals	73.1	58.3	59.6	93.0	90.3
URM totals	25.7	40.8	5.8	6.8	7.4

**Source:** Adapted from Mitchell, et al., American Journal of Public Health, 2006 [54]

**Note:** URM's = Underrepresented minorities. Non-URM and URM values do not total 100 percent because "other" and "unknown" categories were excluded.

**Table 5 Race/Ethnicity Distribution within the U.S. Population (Current and Projected) and Among 2004 Health Professions Graduates**

	US Population, %		Health Professions, %		
	2000 Census	2050 Projections	Medicine	Dentistry	Public Health (Doctoral)
White, non-Hispanic	69.4	50.1	64.0	63.1	75.3
Asian/Native Hawaiian/Pacific Islander	3.7	8.2	20.0	24.7	8.3
Black	12.3	14.6	6.5	4.5	4.7
Hispanic	12.5	24.4	6.4	6.3	2.4
Native American/Native Alaskan	0.9	1.8	1.8	0.6	0.3
Non URM totals	73.1	58.3	84.0	87.8	83.6
URM totals	25.7	40.8	13.5	11.1	7.4

**Source:** Adapted from Mitchell, et al., American Journal of Public Health, 2006 [54]

**Note:** URM's = Underrepresented minorities. Non-URM and URM values do not total 100 percent because "other" and "unknown" categories were excluded.

The Sullivan Commission's report on diversity in the healthcare workforce argues that the under-representation of ethnic and racial minorities in health careers may play a bigger role in healthcare disparities than lack of medical insurance [3]. The Institute of Medicine report on diversity in the health professions "In the Nation's Compelling Interest: Ensuring Diversity in the Health-Care Workforce" presents a preponderance of scientific evidence that show that the health status of racial and ethnic minorities will improve by creating a healthcare workforce that more closely mirrors the diversity of the population it serves [55]. Greater diversity among health professionals is associated with increased access to care, greater patient choice and satisfaction, and better patient-provider interactions. Moreover, there is compelling evidence that when minority patients are afforded choice they are more likely to choose race-concordant providers, even when controlling for office location [55, 56]. A 1999 report in the Journal of the American Medical Association stated that both African American and White patients feel more involved in their healthcare when their physicians are of the same race [57]. Importantly, it has been shown that minority physicians are more likely to practice in under-served areas and treat indigent patients [58, 59]. Lastly, not diversifying health professions schools is detrimental not only to minority students but to their peers as the exposure to different socioeconomic and cultural experiences is vital to the training of health professionals destined to work with an increasingly diverse population. A diverse student body enriches the educational experience of all students as it challenges stereotypes and fosters long lasting relationships [60].

There are a variety of reasons for the under-representation of minorities in the health professions. First, legacies of discrimination have hindered the acceptance of minorities into health professions. For instance, integration of medical schools throughout the nation did not occur until over a decade after *Brown v. Board of Education*, and even after this point, one third of all medical schools were officially closed to African American students [8]. Furthermore, health professional associations reinforced the convention of systematic discrimination [3].

Second, financial barriers tend to dissuade many minority students from pursuing an education within the health field. Minority families often view the financial burden of a professional education as impossible, even for the most talented students [3]. The median educational debt of 2004 medical school graduates, regardless of race, was \$115,625. Specifically, minority graduates had an average median educational debt of approximately \$105,000 [61].

Third, the problem is seen at the beginning of the pipeline with inadequate preparation of minority students for mathematics and sciences by their primary and secondary schools. Often, not receiving the same educational advantages as students from other backgrounds, ethnic and racial minority students generally have lower GPA and MCAT scores [62]. Even talented minority students who do succeed at primary, secondary, and collegiate levels, and who are committed to pursuing a career in one of the health professions, often find it difficult to gain admission to a health professions school. The barriers they encounter include an over-reliance on standardized testing in the admissions process, grade-point averages, unsupportive institutional cultures, insufficient funding sources, and leadership without a demonstrated commitment to diversity [55].

Fourth is the lack of diversity in the academic leadership within health professional schools. Representation of racial and ethnic minorities in senior faculty and administrative positions, in both undergraduate and graduate education is key for influencing education, research and service functions, and inspiring others from under-represented backgrounds to pursue health careers [63]. Currently, underrepresented minorities account for only 4.2 percent of medical-school faculty in the United States, less than 10 percent of the baccalaureate and graduate nursing school faculty, and 8.6 percent of dental school faculty [55].

Despite the reasons for minority under-representation in the health professions, it is important to recognize that progress has been made. Recent data show that ethnic racial minorities are not only as interested as their peers in pursuing college-level science study, they are also increasingly choosing biology and sciences majors[64]. There are several programs in the nation that capitalized on this understanding such as the Meyerhoff Scholars Program at the University of Maryland, Baltimore County, and the Biology Scholars Program at the University of California, Berkley. These programs employ strategies for on-going mentorship, study group participation, and extended opportunities for research.

**Table 6. National Data on Health Workforce Diversity**

<u>Profession</u>	<u>Percent URM</u>
Social Work	31.3
Clinical Laboratory	21.5
Physician Assistants	16.2
Registered Nurses	14.5
Physical Therapy	10.4
Occupational Therapy	8.8
Speech Language Pathology	8.1
Psychology	7.9
Medicine	6.4

**Source: Bureau of Labor Force Statistics (BLFS), Current Population Survey [65].**

### Cultural Competence

The cultural challenges posed by a shifting patient demographic can best be addressed by health professionals educated and trained in a culturally dynamic environment. The absence of a sound patient-provider relationship is believed to be a major factor in disparities in the quality of care received by ethnic and racial minority groups [54]. Good patient-provider communication is associated with better patient satisfaction, better adherence to treatment recommendations and improved health outcomes [66, 67]. Cultural competence is defined as “a set of congruent behaviors, knowledge, attitudes and policies that come together in a system or organization or among professionals that enables the system or agency or those professionals to work effectively in cross-cultural situations” [68]. This issue is so important that the Institute of Medicine, in its seminal report *Unequal Treatment* identified cross-cultural training as a key recommendation for reducing healthcare disparities [8].

Provision of culturally competent care is not an option but a requirement. In 2006, the Joint Commission on Accreditation of Health Care Organizations (JCAHO) stated that it views “the issue of the provision of culturally and linguistically appropriate health care services as an important quality and safety issue...” Moreover, the Liaison Committee on Medical Education (LCME), the Association of American Medical Colleges (AAMC), the Accreditation Council for Graduate Medical Education (ACMGE) and the Federation of State Medical Boards (FSMB) all stipulate that they either endorse or require sensitivity to diverse patient populations and the development of a model cross-cultural curriculum. Recognizing the importance of cultural competency in medical care, the states of New Jersey, California and Washington already passed legislations to require such training in conjunction with licensure or re-licensure. Additionally the states of Arizona, Illinois, Ohio and New York have such legislations pending. The states of Georgia and Maryland introduced such bills in the 2005-2006 legislative sessions but neither bill was passed.

Given the growing ethnic diversity in the U.S. the understanding of cultural variation of view of disease, treatment modalities and wellness is essential in providing effective care to an increasingly diverse population.

## **Health of Vulnerable Populations**

Although this plan’s primary focus is racial and ethnic health disparities, other groups also suffer a disproportionate burden of illness and healthcare inequities. This section will present information on disparities for: individuals suffering with mental illness, immigrant populations, gender specific groups, and incarcerated populations.

### **Mental Health Disparities**

Mental health is a fundamental part of overall health and productivity pertaining to self, family, community and society at large [69]. Unfortunately, views of good health as simply the absence of disease tend to obscure the importance of mental wellness especially in the lack of obvious symptoms [70].

It is documented that there are striking disparities in mental healthcare for racial and ethnic minorities which involve access, appropriateness of intervention, quality of care, and health outcome [71]. The following statistics will illustrate some of the mental health disparities experienced by the four major ethnic groups in the U.S. [71].

- African Americans represent a large proportion of populations most likely to experience severe mental health disorders: the homeless, the incarcerated, those in the child welfare program, victims of trauma and those living in extreme poverty.
- The suicide rate among American Indians/Alaskan Natives is 50 percent higher than the national rate. Additionally, the rate of co-occurring mental health and substance abuse is higher among Native Americans youth and adults than other groups.
- Asian American/Pacific Islanders who seek care for a mental illness often present with more severe illness than do other groups. This in part reflects the stigma and shame associated with mental health disorders, leading to denial of disease and delayed care.

- As many as many as 40 percent of Hispanic American and more than 50 percent of Asian Americans/Pacific Islanders report Limited English Proficiency (LEP) and therefore have limited access to linguistically appropriate mental health services.

Reducing disparities in mental healthcare greatly depends on increasing access to services and the means of delivering care. Providing culturally competent care is critical. First of all, minorities are under-represented among mental health providers, researchers, administrators and policy makers thus limiting the understanding of culture on disease progression and treatment modalities [71]. Additionally, little information is available on psychiatric disorders among race-ethnic subgroups, and only two national studies have assessed psychiatric disparities in ethnic/racial minorities [72]. Importantly, behavioral health treatment is predominantly based on interpersonal communication and demands the ability for providers and patients to interact well and develop a meaningful relationship. A consumer-centered approach is essential for the delivery of mental health services.

### **Health Issues Affecting Immigrants and Refugees**

Immigrants face a major challenge in the widening disparities related to healthcare access and insurance coverage. Immigrants and their U.S. born children are more likely to live in poverty and one third of them lack health insurance (2.5 times the rates of non-immigrants). Immigrants may also not be familiarized with Western medical practices and face linguistic and cultural barriers to healthcare [14].

Estimates for 2000 indicate that over a third of Hispanics are foreign born, suggesting limited language proficiency for a large portion of individuals of Hispanic ethnicity. Similarly, 62 percent of Asian Americans and Pacific Islanders were foreign born in 2000, indicating another large population group for whom English is a second language [73]. Overall, according to the 2000 Census, almost one fifth of U.S. residents speak foreign languages other than English at home and nearly half of these individuals face severe linguistic barriers to English communication [74]. It is documented that patients with Limited English Proficiency (LEP) are less likely to have a regular source of healthcare; they are more likely to report medication complications and are less satisfied with their communications with healthcare providers and healthcare in general [74].

There are many physical and mental health concerns faced by new immigrants. These include infectious diseases that are endemic or highly prevalent in their countries of origin such as Hepatitis B virus infection and tuberculosis [29]. In addition to infectious diseases, certain kinds of cancer are disproportionately present in immigrant populations. Cervical cancer disproportionately burdens Filipino women, and Southeast Asian women.

Lastly, resettlement, immigration status and low acculturation levels all contribute to an increased risk of depressive symptoms among new immigrants[75]. In addition, new immigrants and refugees fleeing harrowing conditions in their countries of origin may experience Post Traumatic Stress Syndrome (PTSD).

## Gender-Specific Health Issues

### Selected Women's Health Issues

In the U.S., while recent examinations of gender differences in physical health suggest that women's disadvantage may be smaller than previously assumed, there are still several areas of disparate health pertaining to women.

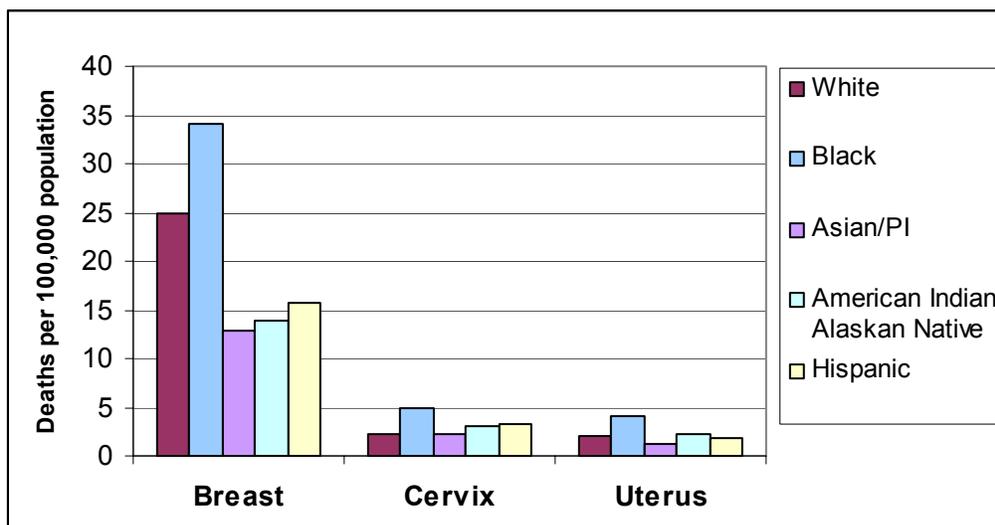
While women survive longer, than men, quality of life in older ages is worse for women. Women report more functional limitations than men, and the gap increases with age [76]. Moreover, women experience poorer care than men in a variety of debilitating conditions: Women experience poorer quality of care related to critical care for HIV-related illness [77]. Women with diabetes are less likely than men to receive all recommended process measures for care: HbA1c, lipid profile, eye exam, foot exam and influenza immunization [78].

**Diabetes in Women.** The latest statistics show that minority women are at higher risk for diabetes than White women (Office of Minority Health Resource Center, 2002). Alarming, diabetes can be undetected for many years, leading to blindness, amputation, kidney disease and premature death from heart disease and stroke. It is documented that nearly one in three African American women ages 65-74 years have diabetes. Twenty-five percent of Hispanic women have been diagnosed with Type 2 diabetes, and about 33 percent of deaths among them are attributed to diabetes as the underlying cause. American Indian and Alaskan women have almost three times the risk of being diagnosed with diabetes as their White age counterparts.

**Cancer in Women.** In 2002, mortality rates for cervical cancer were 117 percent higher for African American women as for White women, uterine cancer was 100 percent higher, and breast cancer was 37 percent higher for African American women than for White women, as shown in Figure 7 [79].

Figures on prevalence versus outcomes for cancer by racial/ethnic groups are most disturbing. White women have the highest cancer incidence rates; however, African American women have the highest cancer death rates. For example, although breast cancer is diagnosed 24.5 percent less frequently in African American women than White women, African American women are 33 percent more likely to die from the disease, and the disparity appears to be increasing [28]. American Indian Women are 1.9 times as likely to die from cervical cancer as compared to White women [28].

**Figure 7. Female Mortality Due to Cancer in Three Sites: US, 2002**



**Source:** Adapted from U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2002 Incidence and Mortality Web-based Report Version*. Atlanta: Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2005 [79].

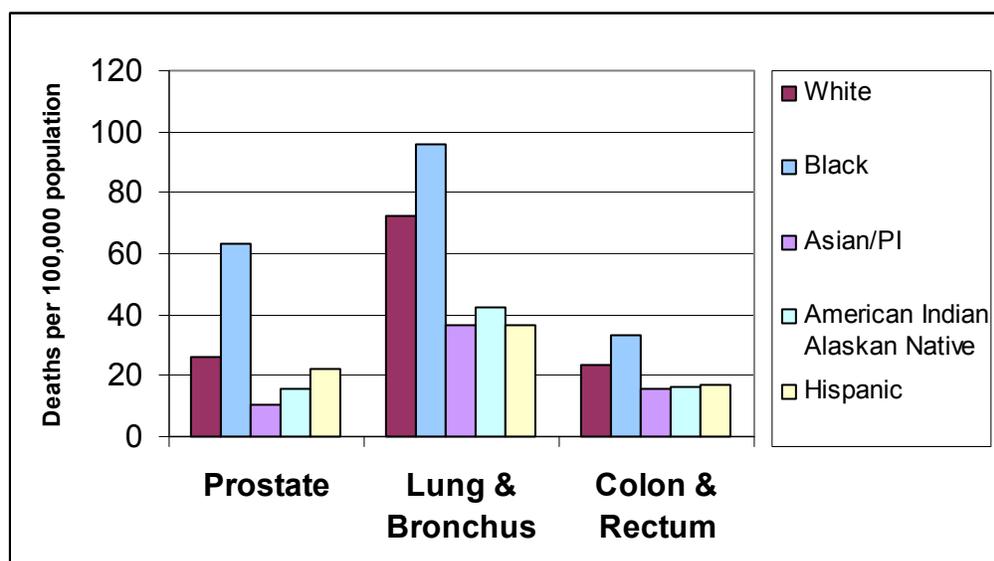
The disease remains the leading cause of death for Asian American women [28]. Chinese American and Japanese American women have higher rates of breast cancer than women of their same age in China and Japan [28]. It is believed that the cause of this high cancer rate in Asian American women is due to this group having the lowest rates of preventive screening such as pap smears [28]. As mentioned above, the data limitations for Asians, American Indians, and Hispanics may underestimate age-adjusted death rates for certain types of cancers.

### Selected Men's Health Issues

Ethnic/racial minority men are less healthy than any other group in the country and are more likely to suffer disproportionately from the affects of chronic disease and early mortality [80]. African American and Latino/Hispanic men are more likely to *not* seek needed medical care even when they are in poor health. Even when controlling for insurance status, minority men are less likely to receive timely preventive measures and thus are more likely to suffer the consequences of delayed care such as amputation and radical surgery.

**Prostate Cancer.** The most frequently diagnosed cancer sites in males are prostate, lung and bronchus, and colon and rectum. In 2002, cancer mortality rates for African American males exceeded those for White males by 144 percent for prostate, 44 percent for colon and rectum, and 32 percent for lung and bronchus, as shown in Figure 8 [79].

**Figure 8: Male Mortality Due to Cancer in Three Sites: US, 2002**



**Source:** Adapted from U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2002 Incidence and Mortality Web-based Report Version*. Atlanta: Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2005 [79].

African American men have the highest incidence and mortality of prostate cancer in the world [81]. This high incidence is partially blamed on diets high in red meat and/or high fat-dairy products, low consumption of fruits and vegetables and little or no regular exercise and physical activity.

Some studies have suggested that early detection of prostate cancer in asymptomatic men reduces mortality rate disparities [82]. In spite of this, African American men are less likely to have had prior prostate cancer screening and are more likely than others to not partake in free screening. Lack of participation of African American men in prostate cancer screening and detection programs, is a serious problem given the dire ramifications of late diagnosis.

For minority groups other than African Americans, mortality rates are lower than White rates. This may be due to some limitations in the data such as misclassification of minorities on death certificates and the return of older foreign-born minority residents to their home countries. These two factors may be underestimating death rates for Asians, American Indians, and Hispanics.

### **Incarcerated Populations**

Nearly one in every three African American males will serve time in a state or federal prison in their life time [83]. The incarceration rates for all African Americans are 5-7 times greater than those for White males [21]. The increased incarceration of drug offenders makes for overcrowding of inmates with chronic and serious infectious diseases such as HIV, tuberculosis, and hepatitis. Importantly, mental health conditions are pervasive among inmates with 22-30

percent suffering from anxiety disorders, 6-12 percent post traumatic stress syndrome, and 13-19 percent with major depression. African American men who are incarcerated and then reenter their communities upon release face major obstacles such as unemployment, disenfranchisement, limited housing, poor health and lack of access to health services. These issues affect not only the incarcerated but their families and communities at large [83].

## IV. HEALTH DISPARITIES IN MARYLAND

Many of the disparities seen nationally in health status, healthcare access and quality are also seen in Maryland. This section will describe selected health disparities in mortality, disease occurrence, disease risk factors, health insurance and access to healthcare that exist in Maryland. It will also present, for some conditions, a comparison of disparities in the occurrence of the disease with the disparities in the consequences of the disease: healthcare utilization, disease complications, and deaths from the disease. These comparisons provide important first clues as to whether a focus on disease development disparities or on disease management disparities is more important for a particular disease.

Maryland's population was 39.6 percent minority in the 2004 vital statistics data [84], as shown in Table 7. By specific minority group, Maryland was 29.6 percent African American, 4.9 percent Asian, 5.4 percent Hispanic, and 0.4 percent American Indian. Because the African American population is 75 percent of Maryland's minority population, data for that group is the most extensive among the minority groups; this allows for a more statistically sound analysis in that population. For this reason, several analyses below are limited to comparisons of African Americans to Whites. In addition, the very small size of the Native American population makes analysis of their health disparities especially challenging. The Office of Minority Health and Health Disparities within the Department of Health and Mental Hygiene is committed to developing approaches to data collection and analysis that will allow us to improve data reporting for Maryland's smaller minority communities.

**Table 7. Maryland Population by Race and Ethnicity, July 1, 2004**

Race	All Ethnicity	Non-Hispanic	Hispanic
<b>White</b>	3,617,094 65.1%	3,355,955 60.4%	261,139 4.7%
<b>Non-White</b>	1,940,964 34.9%	1,904,386 34.3%	36,578 0.7%
<i>Black</i>	1,645,781 29.6%		
<i>Asian / Pac Isle</i>	274,298 4.9%		
<i>American Indian</i>	20,885 0.4%		
<b>MD total</b>	5,558,058 100.0%	5,260,341 94.6%	297,717 5.4%

**All percents are percentage of the total Maryland population.**

**Source: Maryland Vital Statistics Annual Report 2004 [84]**

Several of the following analyses present age-adjusted data. Age-adjustment is a method of making a fair comparison between two groups regarding a condition whose impact is vastly different at different ages when the two groups have important differences in their age pattern. For most chronic diseases (which are also the leading causes of death), both the occurrence of the disease, and the mortality from the disease are greatest in persons at or above the age of 65. About 13 percent of Maryland Whites are 65 or older, while only about 8 percent of African Americans are that age [84]. This difference in age pattern makes the overall White death rate larger than the African American death rate if age is not taken into account. This is despite the fact that at any age, the death rate for African Americans is higher. Age-adjustment solves this problem, and is the correct way to assess disparity for most chronic conditions.

## **Minority Disparities in Mortality**

Vital statistics data reveal that in 2004, age-adjusted all cause mortality for African Americans was 989 per 100,000, which was 1.3 times higher than for Whites (758 per 100,000) [84]. For other minority groups, the age-adjusted death rates from vital statistics data are lower than White rates, but this may be due to some limitations in the data unique to those groups. Death rates in vital statistics data are determined from information on death certificates. If there is misclassification of minorities as non-Hispanic Whites on death certificates, the count of minority deaths will be too low, and the minority death rate will be underestimated. This kind of error is uncommon for African Americans, and more common for the other groups.

A second source of underestimation of minority deaths would be the return of older foreign-born minority residents of the U.S. to their home country at the end of life. This would have a larger effect on the populations that have higher percentages of foreign-born residents. In Maryland, the percent foreign-born by racial and ethnic group is four percent for non-Hispanic Whites, nine percent for African Americans, 16 percent for American Indians, 56 percent for Hispanics, and 72 percent for Asians [85].

These two factors may be underestimating death rates for Asians, American Indians, and Hispanics. Therefore this section focuses on mortality disparities between African Americans and Whites (unless otherwise stated, Hispanic and non-Hispanic are combined within a race, as this is how the vital statistics data are routinely presented). Table 8 shows the age adjusted mortality rates for the 15 leading causes of death in Maryland by White or African American race in 2004 [84]. It also presents the ranking of the disparity in two ways: a ranking based on taking a ratio of the two rates, and a ranking based on taking the difference between the two rates. The ratio approach is the best way to examine the disparity in the mortality risk to an individual, and does not depend on how common death is from that disease. The mortality rate difference approach is the best way to see the overall societal impact of the disparity. This measure gives higher ranks to the more common causes of death, and gives a sense of the number of preventable deaths due to the disparity in that disease.

**Table 8. African American vs. White Mortality Disparity for the 15 Leading Causes of Death, Maryland 2004**

Ratio Disparity Rank	Excess Rate Disparity Rank	Statewide Cause of Death Rank	Disease	Age-adjusted Mortality per 100,000		Ratio	Age-adjusted Difference per 100,000
				Black	White		
8	1	1	Heart Disease	256.2	201.5	1.27	54.7
9	2	2	Cancer	216.7	183.7	1.18	33.0
7	7	3	Stroke	62.7	48.3	1.30	14.4
		4	Chronic Lung Disease	25.1	40.1	0.63	-15.0
4	4	5	Diabetes	45.2	21.8	2.07	23.4
11	11	6	Accidents	27.2	25.4	1.07	1.8
10	10	7	Flu & Pneumonia	23.6	21	1.12	2.6
6	6	8	Septicemia	32.1	16.9	1.90	15.2
12	12	9	Alzheimer's Disease	17.7	17.5	1.01	0.2
1	3	10	HIV / AIDS	28.2	2.2	12.82	26.0
4	8	11	Kidney diseases	22.1	10.7	2.07	11.4
2	5	12	Homicide	24.3	3.3	7.36	21.0
		13	Chronic Liver Disease	6.7	7.8	0.86	-1.1
		14	Suicide	4.3	10.9	0.39	-6.6
3	9	15	Certain Perinatal	13.3	4.1	3.24	9.2

**Source: Maryland Vital Statistics Annual Report 2004 [84]**

All of the 15 leading causes of death except for chronic lung disease, chronic liver disease, and suicide have higher mortality for African Americans. The diseases that rank highest for disparity, expressed as the difference between rates, are heart disease, cancer, HIV/AIDS, diabetes, and homicide. The diseases that rank highest for disparity, expressed as a ratio of the rates, are HIV/AIDS, homicide, perinatal deaths, diabetes, and kidney diseases (tied with diabetes). The mortality rate ratios for HIV/AIDS (12.8 to 1) and homicide (7.4 to 1) are striking compared to the other rate ratios in the table (all of which are less than 3.3 to 1).

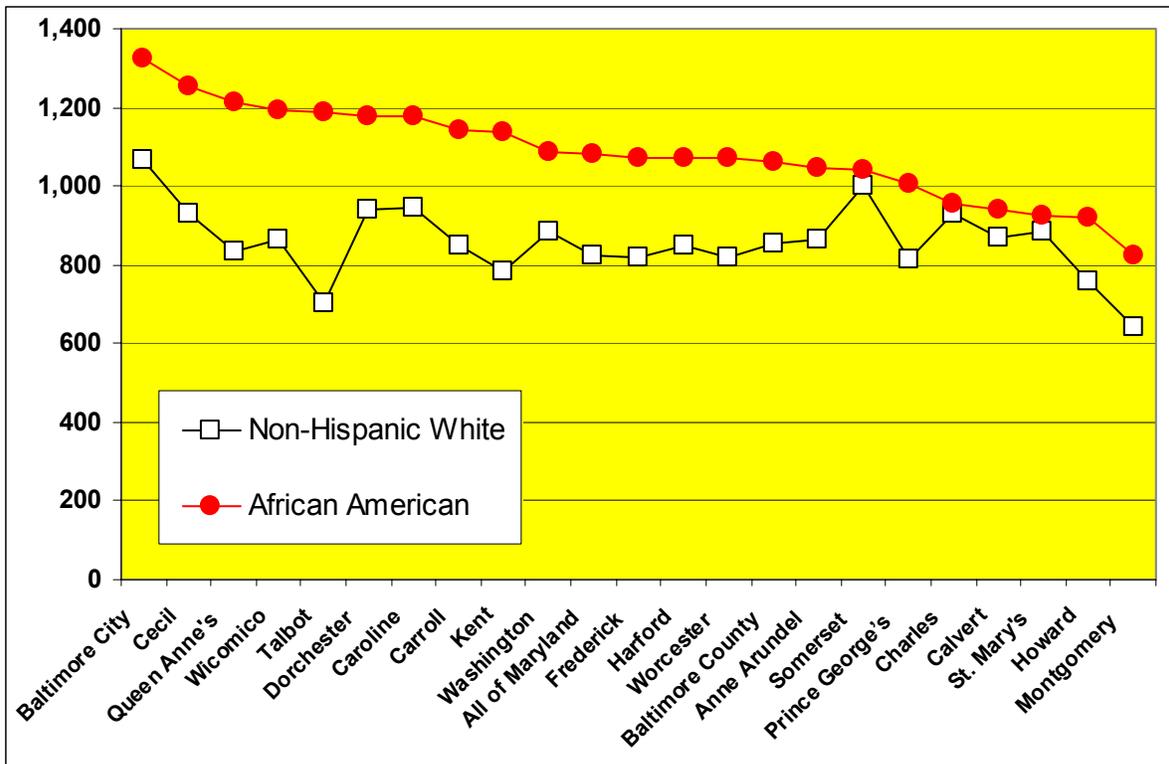
Heart disease and cancer are examples of diseases that rank high in the rate difference approach due to being the most common causes of death. The rate ratios are relatively low (1.3 to 1 for heart disease and 1.2 for cancer), so they rank much lower on the rate ratio approach.

Kidney diseases and perinatal deaths rank high in the rate ratio approach, but since they are less common causes of death, rank lower in the rate difference approach.

HIV/AIDS, diabetes, and homicide rank high in both approaches to ranking disparities, while accidents, influenza/pneumonia and Alzheimer’s disease rank low by both approaches.

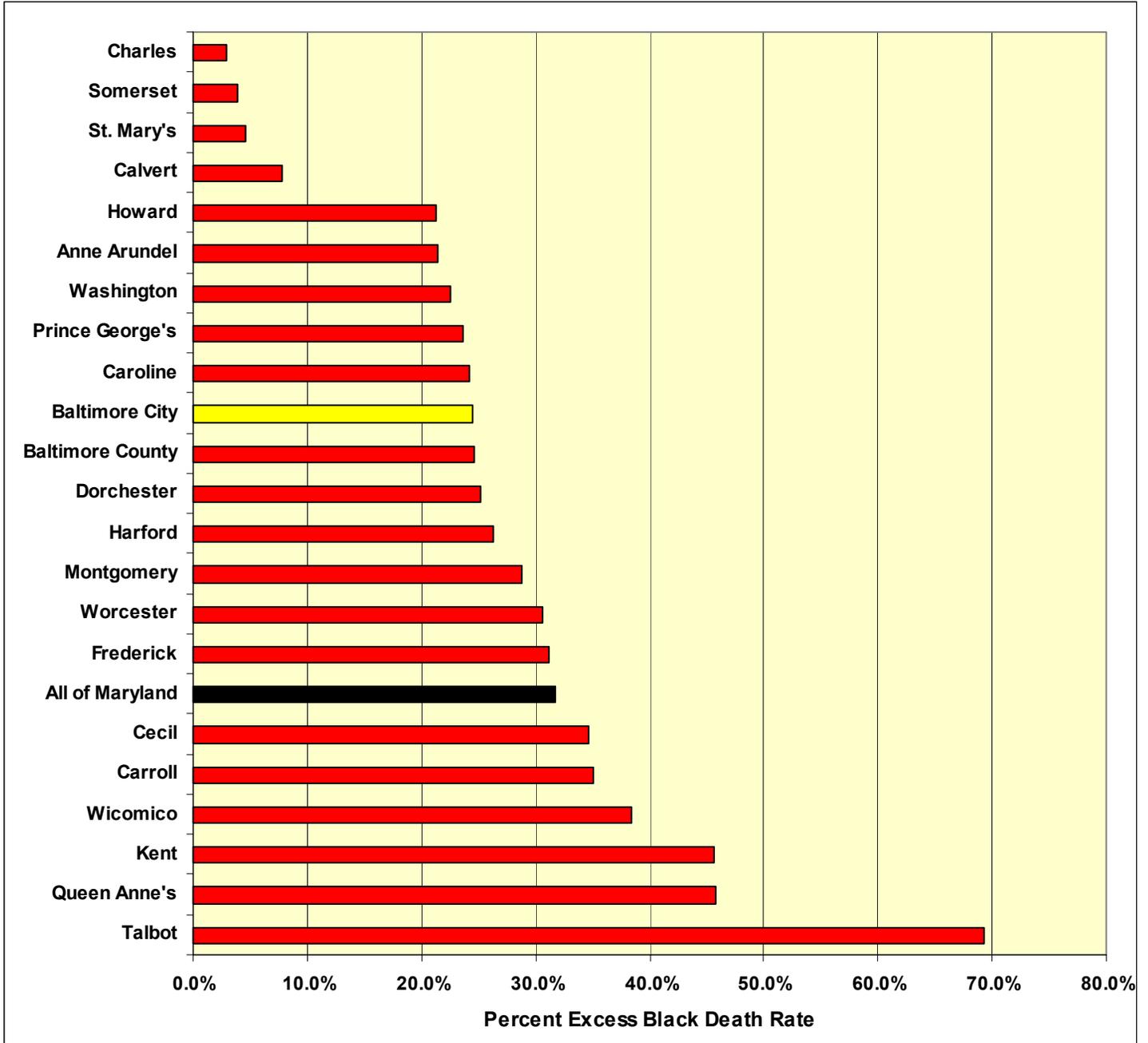
Figure 9 shows the African American and White all-cause mortality by jurisdiction, based on pooled vital statistics data from 2001-2003 [86]. Figure 10 plots the percent by which the African American rate exceeds the White rate in each jurisdiction [86]. Age-adjusted rates for African Americans could not be calculated in Allegany and Garrett counties. These figures demonstrate that disparities exist in all Maryland jurisdictions where the comparison can be made. Disparities are not unique to the jurisdictions with the highest African American populations (Baltimore City, Prince George’s County), and the disparity (expressed as a ratio) is larger in 12 jurisdictions than in Baltimore City.

**Figure 9. Age-Adjusted All-Cause Mortality (rate per 100,000) by White or Black Race and Jurisdiction, Maryland 2001- 2003 Pooled**



Source: Maryland Vital Statistics Administration Data [86]

**Figure 10. Excess Black Death Rate (Compared to Non-Hispanic Whites) In Maryland, by Jurisdiction, 2001-03 Combined**



Age-adjusted to the projected U.S. 2000 population  
 Age-adjusted death rates for Blacks could not be calculated for Garrett or Allegany Counties.

Source: Maryland Vital Statistics Administration Data [86]

These figures also demonstrate that there are geographic disparities within the two racial groups. The ratio of worst to best mortality in African Americans and in Whites is the same as the ratio of the African American to White mortality in the county with the largest disparity ratio. As the efforts to reduce minority health disparities reduce barriers to access, improve quality, and educate the public, the effect should be to also reduce disparities based on geography and other factors, and improve the health of all Marylanders.

Finally, it is worth noting that the African American death rate in Montgomery County is lower than the White death rate in 15 other jurisdictions. This finding demonstrates that there is nothing inevitable about minorities having poorer health than Whites, which means that minority health disparities can be successfully addressed.

Minority disparities in death rates do not discriminate by gender: the disparities are seen for women and for men. This is shown in Table 9 [84]. In 2004, the age-adjusted all cause mortality rate for African American women was 25 percent higher than the rate in White women, while the mortality rate for African American men was 37 percent higher than the rate for White men.

**Table 9. Disparity in Age-Adjusted All-Cause Mortality by Sex, Maryland 2004**

<b>Mortality Rate in Deaths per 100,000</b>				
	<b>Black Mortality</b>	<b>White Mortality</b>	<b>Black/White Rate Ratio</b>	<b>Black - White Rate difference Per 100,000</b>
<b>Female</b>	818.9	654.2	1.25	164.7
<b>Male</b>	1220.8	888.0	1.37	332.8

**Source: Maryland Vital Statistics Annual Report 2004 [84]**

There are also certain gender-specific conditions where disparities exist, such as prostate cancer for men, and breast cancer and cervical cancer for women. The disparities in mortality from these gender-specific cancers are given in Table 10 [87].

It is noteworthy that compared to White women, African American women have higher breast cancer mortality despite lower rates of new cases of breast cancer. This suggests that African American women have breast cancer diagnosed at later stages, and may experience more barriers to accessing timely, high-quality breast cancer treatment.

For prostate cancer in men, the rate of new cases is 1.4 times higher for African Americans than for Whites, and African American mortality is 2.6 times higher. The reasons for this are likely to be similar to those for breast cancer: later stage of diagnosis, and more barriers to timely and high-quality treatment.

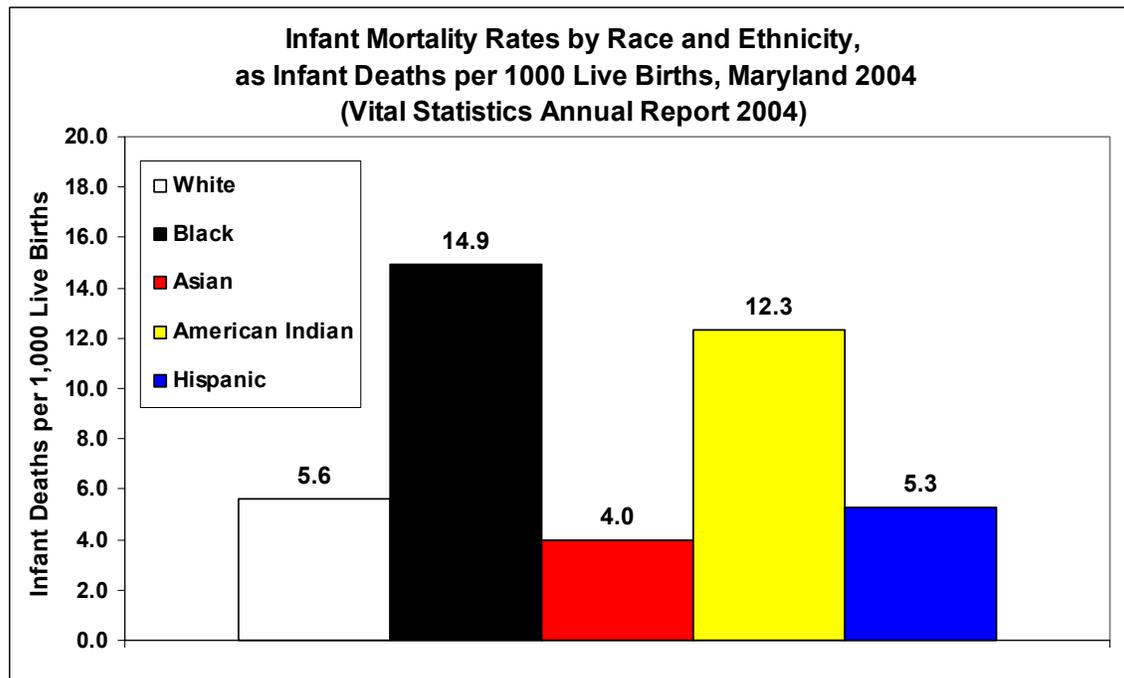
**Table 10. Disparity in Age-Adjusted Mortality from Gender-Specific Cancers, Maryland 2001.**

Mortality Rate in Deaths per 100,000				
	Black Mortality	White Mortality	Black/White Rate Ratio	Black - White Rate difference Per 100,000
<b>Females</b>				
Breast Cancer	32.0	25.9	1.24	6.1
Cervical Cancer	4.6	2.3	2.00	2.3
<b>Males</b>				
Prostate Cancer	65.7	25.1	2.62	40.6

Source: Maryland Annual Cancer Report 2004 [87]

Unfortunately, Maryland also experiences minority health disparities at the youngest end of the age spectrum: disparities in infant mortality. American Indians and African Americans experience high infant mortality rates compared to Whites. Infant mortality rates in 2004 are shown for all racial and ethnic groups in Figure 11 [84].

**Figure 11. Infant Mortality Rates by Race and Ethnicity, Maryland 2004**



Source: Maryland Vital Statistics Annual Report 2004 [84]

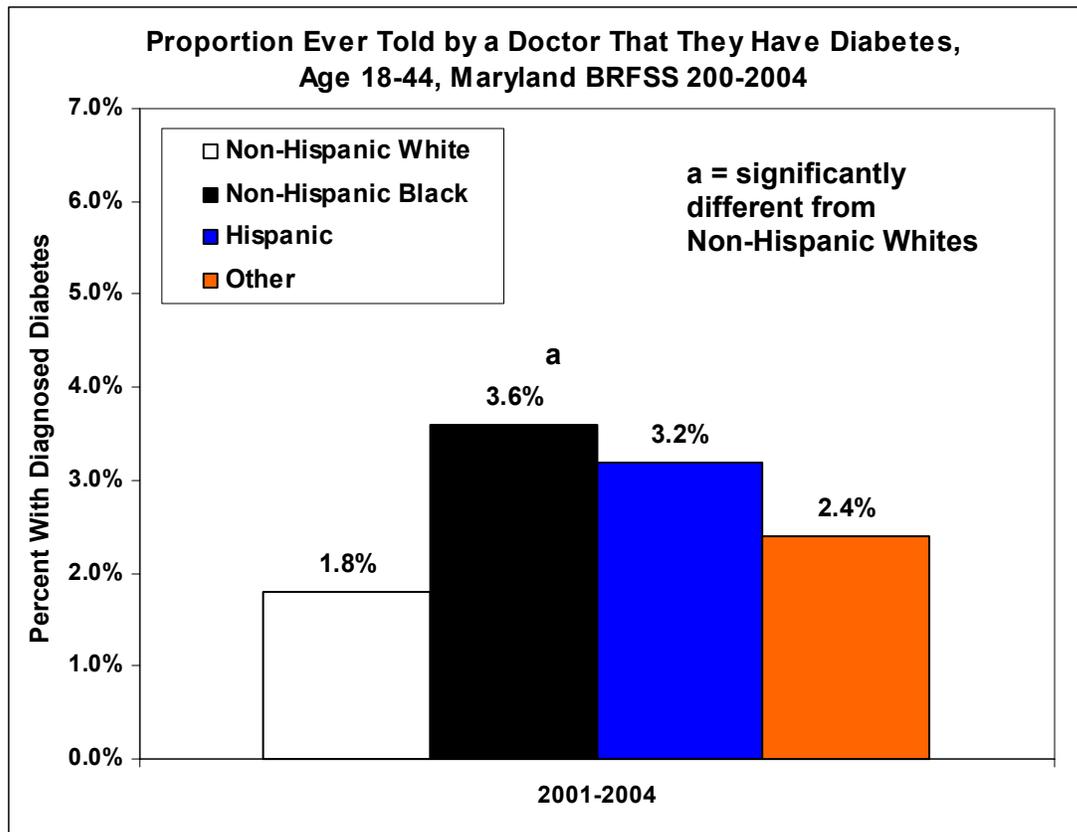
## Minority Disparities in Disease Occurrence

Many factors potentially contribute to minority disparities in mortality rates. These may include a variety of factors that affect access and quality of healthcare, and a variety of factors that influence the rate of acquiring particular diseases or conditions. Maryland's minority populations experience disparities in the occurrence of various diseases, compared to the White population.

Disease occurrence is measured in two ways. **Incidence** of disease expresses the rate at which persons without the disease develop the disease. This can be applied to diseases that resolve, such as some infections and some injuries, or to chronic conditions that remain after onset. **Prevalence** of disease expresses the proportion of the population that has a disease at a particular time. This is usually used to describe chronic diseases, since it contains both the new cases and the old cases. Diabetes, high blood pressure, end-stage renal (kidney) disease, and HIV/AIDS are presented as examples of disparities in disease occurrence.

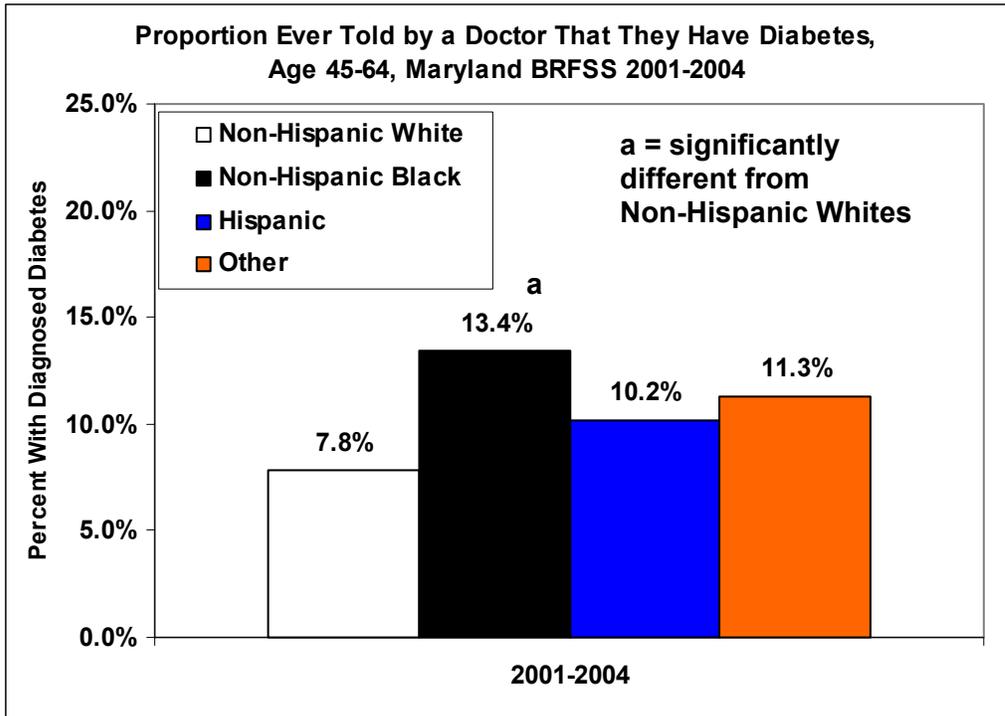
**Diabetes.** The prevalence (percent of people who have) a doctor diagnosis of diabetes in Maryland, by age group and race/ethnicity, is shown in the three figures below.

**Figure 12. Prevalence of doctor diagnosed diabetes in adults age 18-44, by race/ethnicity, Maryland 2001-2004.**



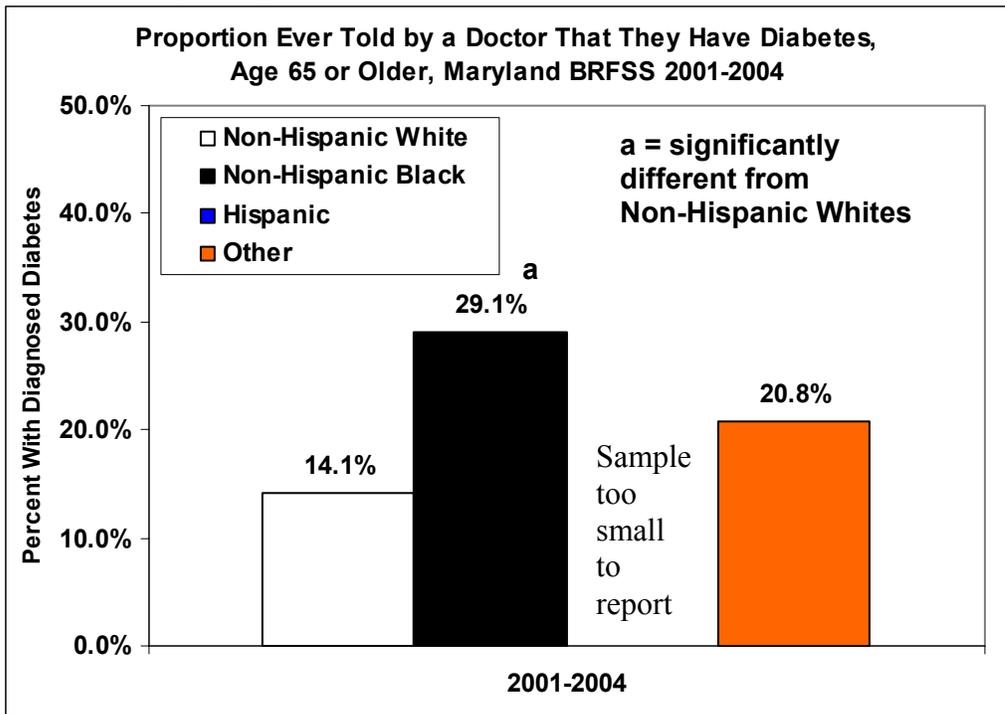
Source: Pooled data from Maryland BRFSS [88]

**Figure 13. Prevalence of doctor diagnosed diabetes in adults age 45-64, by race/ethnicity, Maryland 2001-2004.**



Source: Pooled data from Maryland BRFSS [88]

**Figure 14. Prevalence of doctor diagnosed diabetes in adults age 65 or older, by race/ethnicity, Maryland 2001-2004.**



Source: Pooled data from Maryland BRFSS [88]

Even with pooling of several years, there was insufficient data to separately report Asian and American Indian prevalence. And there was insufficient data to report the prevalence in Hispanics age 65 or older.

Separating the analysis into separate age groups is another way to adjust for age, and it reveals any differences between the age groups. The consistent finding for diabetes is that across all of these age groups, diagnosed diabetes is about twice as common for African Americans, and about 1.5 times as common for other minority populations, compared to non-Hispanic Whites [88]. The results for African Americans are statistically significant, meaning that the difference is larger than the margin of error for the survey. Due to small sample sizes for other minority groups, the margin of error for their comparison to non-Hispanic Whites is larger, and that comparison is not greater than the margin of error (not statistically significant). We expect that when additional years of data can be pooled, we will see a significantly higher prevalence of diagnosed diabetes in these smaller minority groups.

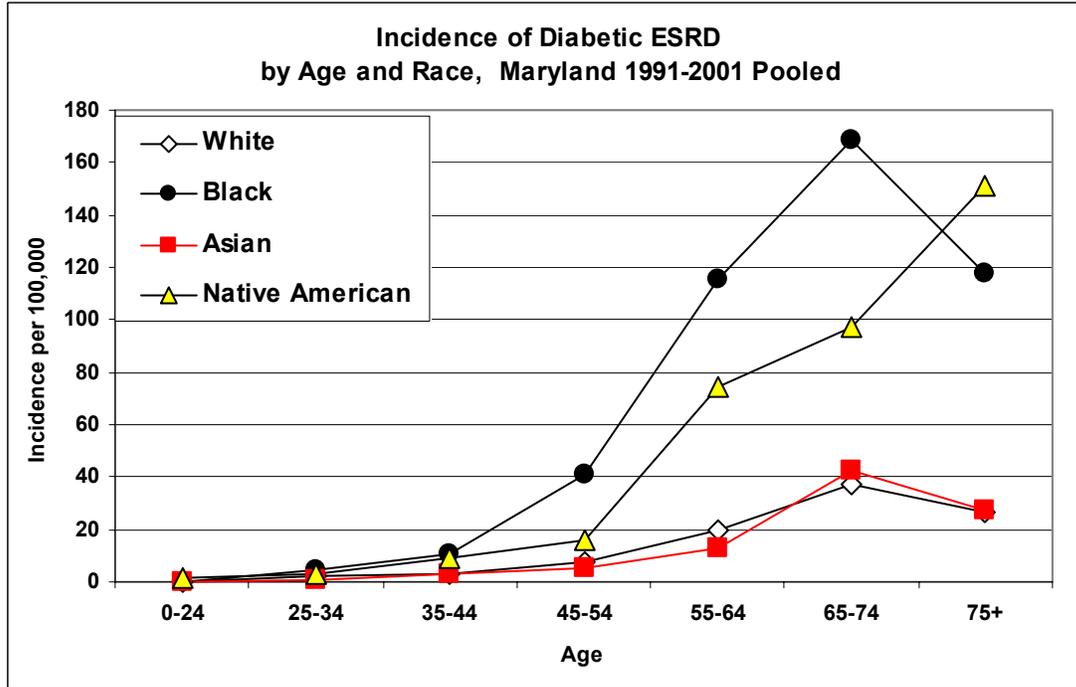
Diabetes can remain undiagnosed for several years after it develops, and minorities may well be more likely to have their diabetes undiagnosed due to their disparity in access to healthcare. So the disparities in total diabetes (diagnosed and undiagnosed) are probably even larger than the numbers presented here.

**Hypertension.** Similar analysis in the Behavior Risk Factor Surveillance System (BRFSS) for prevalence of diagnosis of high blood pressure (hypertension) by age group and race/ethnicity (data pooled from 2003 and 2004) reveal that compared to non-Hispanic Whites, African Americans have 14 percent more diagnosed hypertension at ages 18-44 (but not statistically significant), 33 percent more at ages 45-64 (statistically significant), and 15 percent more at ages 65 or older (statistically significant) [88].

In the survey, Hispanics have 42 percent less diagnosed hypertension than non-Hispanic Whites at ages 18-44 (this is statistically significant), 33 percent less at ages 45-64 (not statistically significant) and insufficient data to compare at ages 65 or older [88]. The lower rates of diagnosed hypertension in Hispanics could be an artifact of their barriers to access to healthcare: Hispanics in Maryland are the most uninsured race/ethnic group. In addition, BRFSS has not been administered in Spanish in Maryland until 2007, which excluded the portion of the Hispanic population that is likely to have the greatest number and severity of health problems.

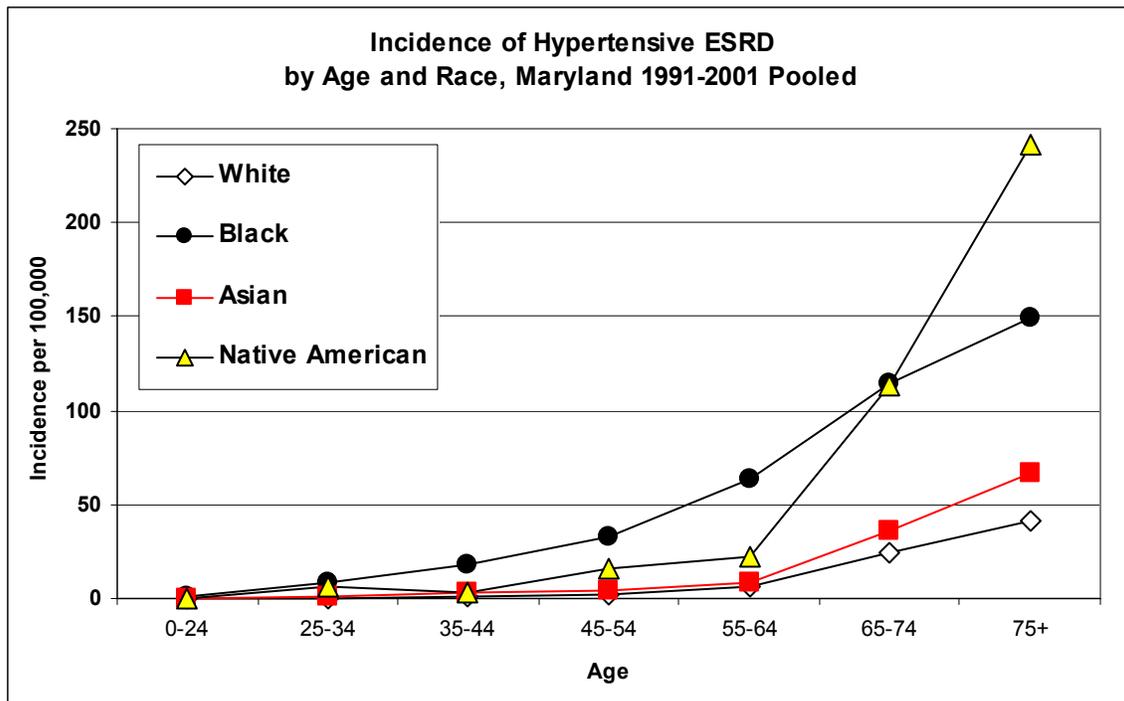
**End-Stage Renal Disease.** Diabetes and hypertension are the leading causes of end-stage renal (kidney) disease (ESRD) in Maryland, accounting for about 70 percent of cases [89]. Disparities in the new cases of ESRD for these causes are shown in following four figures.

**Figure 15. Incidence of Diabetic End-Stage Renal Disease in Maryland, by Race 1991-2001 Pooled Data.**



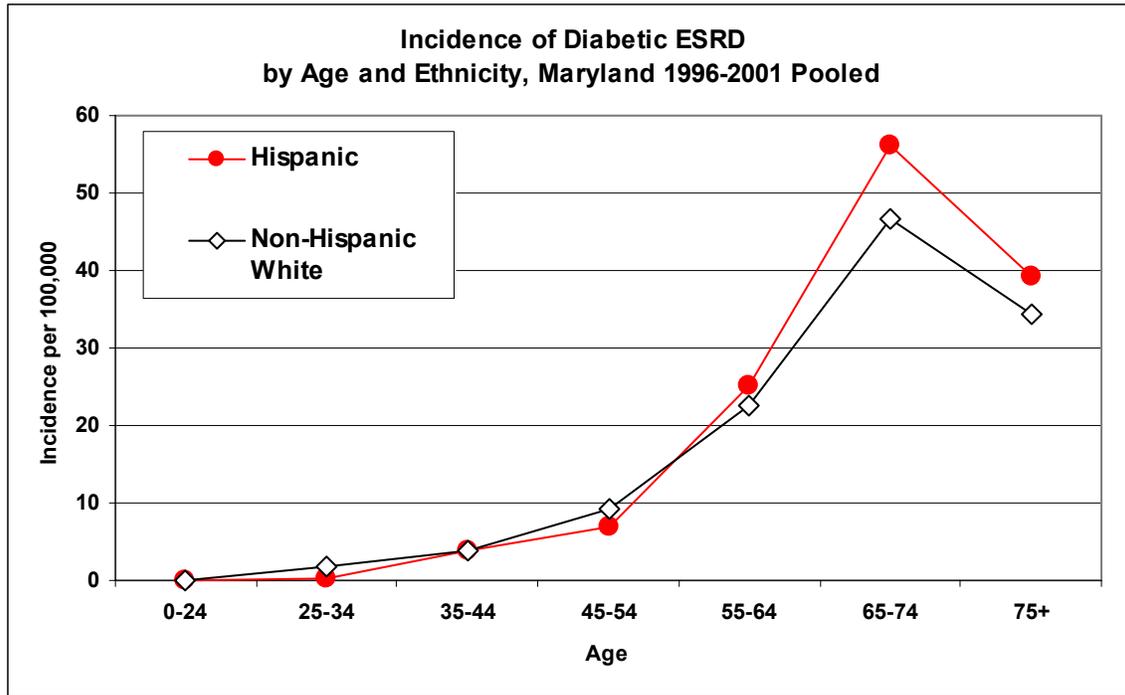
Source: DHMH analysis of U.S. Renal Data System Data [89]

**Figure 16. Incidence of Hypertensive End-Stage Renal Disease in Maryland, by Race, 1991-2001 Pooled Data.**



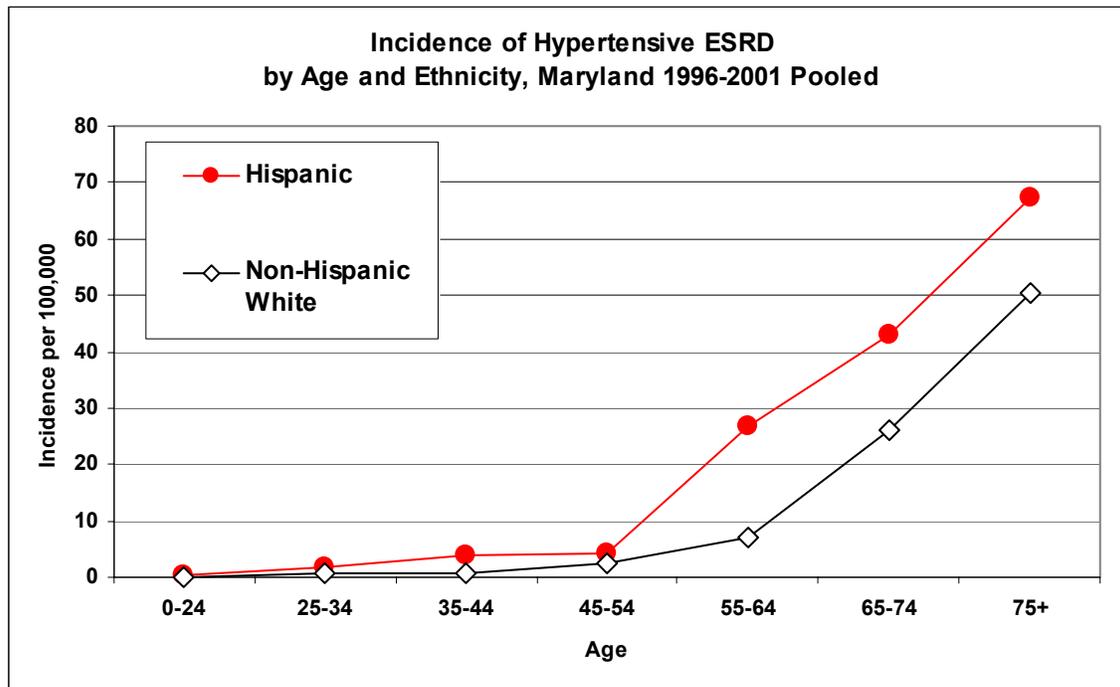
Source: DHMH analysis of U.S. Renal Data System Data [89]

**Figure 17. Incidence of Diabetic End-Stage Renal Disease in Maryland, by Ethnicity, 1996-2001 Pooled Data.**



Source: DHMH analysis of U.S. Renal Data System Data [89]

**Figure 18. Incidence of Hypertensive End-Stage Renal Disease in Maryland, by Ethnicity, 1996-2001 Pooled Data.**



Source: DHMH analysis of U.S. Renal Data System Data [89]

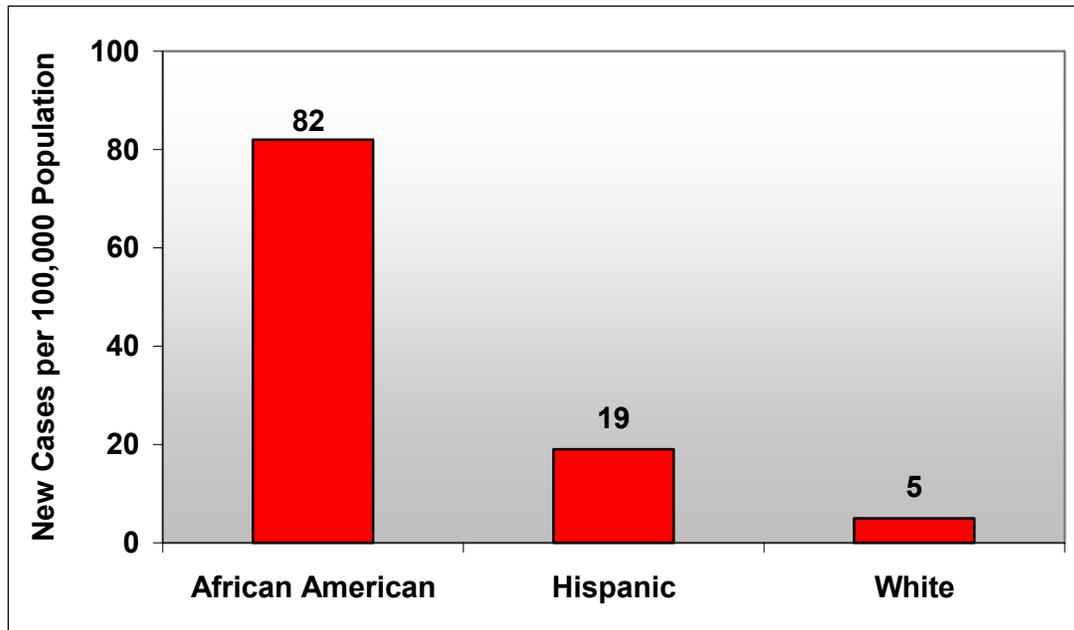
In these analyses, data were pooled over the 11 years for race, and over the six available years for ethnicity, to have enough numbers among the smaller minority groups.

Large disparities in ESRD incidence are seen for African Americans and American Indians. Depending on age group, incidence rates for adults are about two to six times higher for diabetic ESRD in these two minority groups, and from three to 24 times higher for hypertensive ESRD, than for Whites [89]. These incidence ratios far exceed the ratios for the prevalence of diabetes and hypertension, which suggests that these minority groups have hypertension and diabetes that is less well controlled.

ESRD rates for Asians are similar to those for Whites for diabetic ESRD, and 1.5 to five times higher for hypertensive ESRD [89]. Diabetic ESRD rates for Hispanics are 10 to 20 percent higher than for Whites for adults age 55 or older, and hypertensive ESRD rates for Hispanics are 1.5 to five times higher than for Whites [89].

**HIV/AIDS.** Another condition where striking minority disparities in disease incidence are seen is HIV/AIDS. Figure 19 shows the disparities in the rates of new cases of HIV for African Americans and Hispanics, compared to non-Hispanic Whites.

**Figure 19 Maryland HIV Incidence Rate by Race/Ethnicity, 2003.**



Source: Maryland 2005 HIV/AIDS Annual Report [90]

The rate of new HIV cases among African Americans is 16 times higher than it is for Whites, and the rate for Hispanics is almost four times higher [90]. Since the disparity in mortality from HIV/AIDS for African Americans is about 13 to one [84], virtually all of the African American mortality disparity in HIV/AIDS is driven by the disparity in the rate of new cases. Only a solution that can address this huge difference in incidence rates will effectively reduce the African American mortality disparity due to HIV/AIDS.

## Minority Disparities in Disease Risk Factors

Disparities in the occurrence of disease are driven by disparities in the risk factors for those diseases. These risk factors include environmental exposures, psychosocial stresses, health related behaviors, and genetic differences in susceptibility. There are several risk factors that are important to many chronic diseases: cholesterol, smoking, physical activity, and obesity. The disparities in these risk factors are presented below.

Information on health behaviors is usually obtained from surveys. The BRFSS survey, the source of the information below, is done as a random dialing telephone survey. As such, it does not reach persons without a land line telephone, does not include persons in institutions, and prior to 2007, was not administered in Spanish. These limitations may lead to the survey not reaching the most disadvantaged members of minority populations, and thus the disparities may be larger than shown in the survey data. Also, small sample sizes prevented separate analysis of Asians and American Indians in these age groups.

**Cholesterol.** Combining data from the 2001 and 2003 BRFSS and examining the same three age groups that were used in the diabetes figures, the proportion of adults ever told by a health professional that they have high cholesterol was similar for African Americans, Hispanics, and non-Hispanic Whites for all ages with one exception: African American Adults age 18-44 were 25 percent less likely than non-Hispanic Whites to have been told they have high cholesterol (statistically significant) [88].

Minority levels of high cholesterol may be underestimated since testing for high cholesterol is more prevalent in non-Hispanic Whites. The combined 2001 and 2003 BRFSS data reveals that compared to African Americans, non-Hispanic Whites were more likely to have had a cholesterol test in the last two years: two times more likely at ages 18-44 and 45-64, and eight times more likely at ages 65 or older [88]. Compared to Hispanics, non-Hispanic Whites were three times more likely at ages 18-44 and six times more likely at ages 45-64 (insufficient data at ages 65 or older) to have had a cholesterol test in the prior two years [88]. All of these differences are statistically significant.

**Smoking.** Pooling data from the 2001 to 2004 BRFSS and evaluating smoking in the same three age groups that were used in the diabetes figures shows that the rate of current smoking among African Americans is 20 percent lower at ages 18-44, 25 percent higher at ages 45-64, and almost two times higher at ages 65 or older compared to non-Hispanic Whites (all differences are statistically significant) [88]. Hispanic rates of current smoking, at least in the survey data, are similar to rates among non-Hispanic Whites [88].

**Physical Activity.** Pooling data from the 2001 to 2004 BRFSS and evaluating physical activity in the same three age groups that were used in the diabetes figures reveals that African American adults were 25 percent to 33 percent less likely (depending on age) to perform moderate physical activity 30 minutes or more, five days a week than were non-Hispanic Whites [88]. Hispanics were 25 percent less likely to meet this goal among

adults age 18-44, but equally likely among adults 45-64 [88]. All of these differences are statistically significant. For all races and ages, less than 40 percent of adult met this goal.

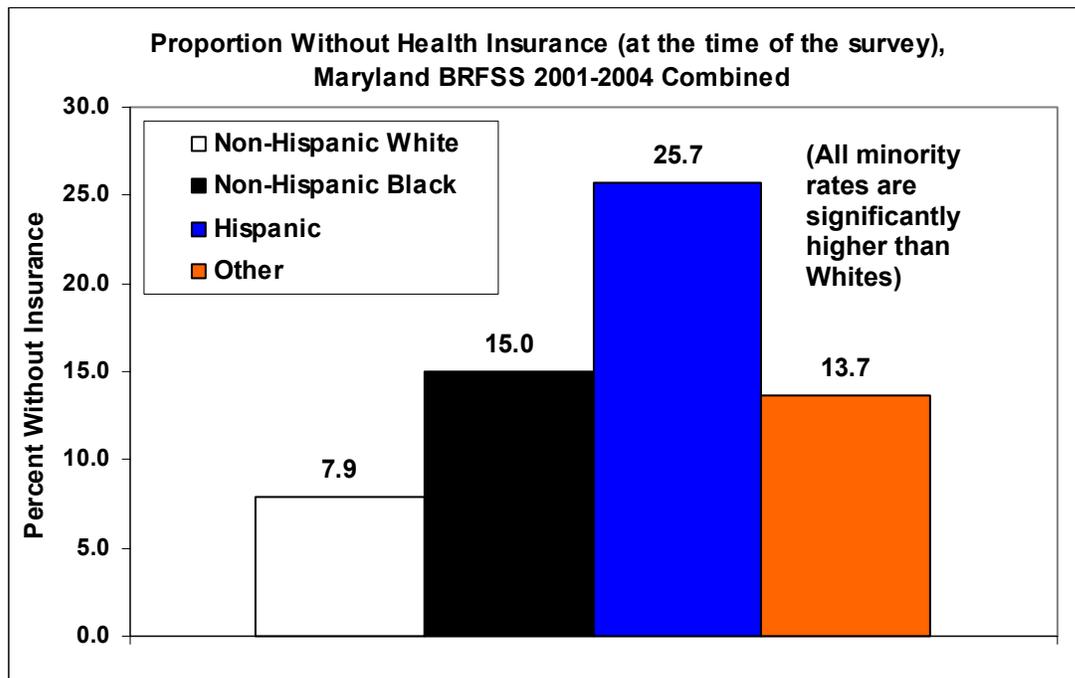
In a similar analysis of the goal of vigorous physical activity 20 minutes or more, three days a week, African American adults were 20 percent less likely to meet this goal than non-Hispanic Whites [88]. Hispanic adults were 20 percent less likely to meet this goal among that age 18-44, but equally likely among adults 45-64 [88]. Once again for all races and ages, less than 40 percent of adults meet this goal.

**Obesity.** Pooling data from the 2001 to 2004 BRFSS and evaluating obesity in the same three age groups that were used in the diabetes figures reveals that the prevalence of obesity across all age groups is about 1.5 times higher for African Americans than for non-Hispanic Whites (statistically significant) [88]. Obesity rates for Hispanics are similar to non-Hispanic Whites [88].

### Minority Disparities in Health Insurance, and in Access to and Utilization of Healthcare

Information on health insurance status is asked in the Maryland BRFSS survey. The rates of uninsurance at the time of the survey are presented in Figure 20. Hispanics have the highest rate of uninsurance by this measure, three times higher than non-Hispanic Whites [88]. African Americans and the group of other races have an uninsurance rate that is about two times higher than non-Hispanic Whites [88].

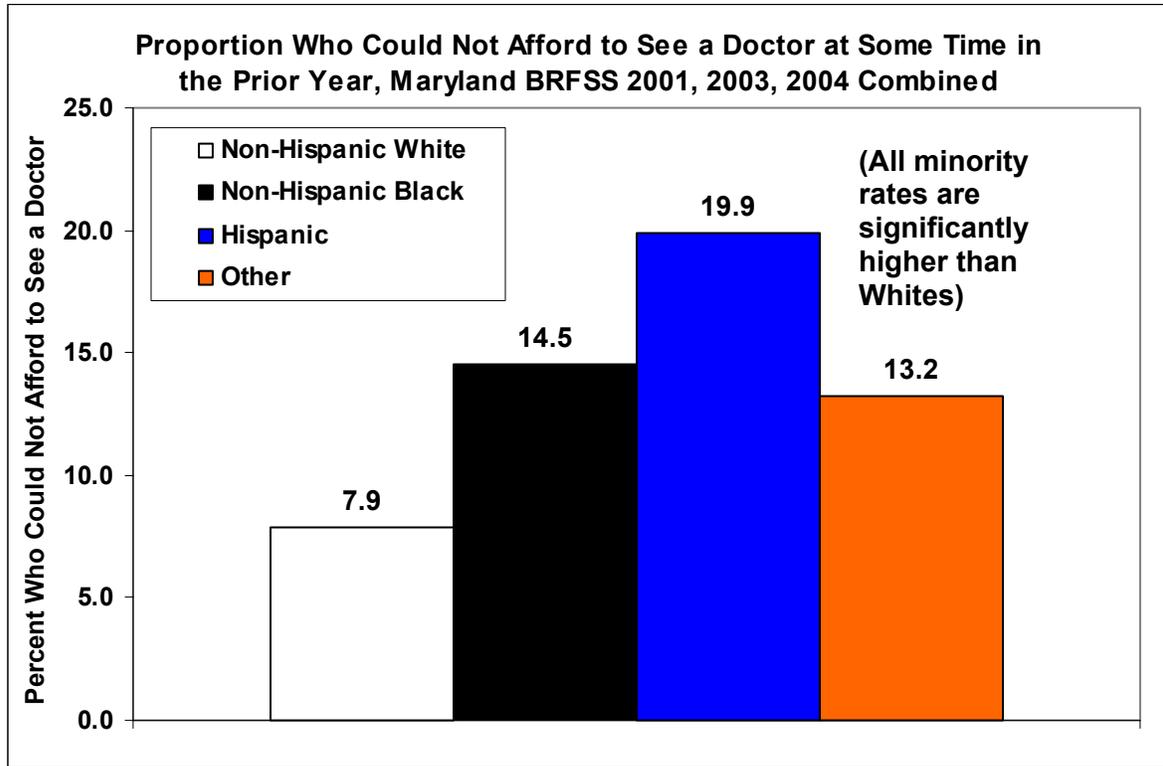
**Figure 20. Disparity in Health Insurance, Maryland 2001-2004 Pooled Data.**



Source: Pooled data from Maryland BRFSS [88]

In most years, the BRFSS survey also asks if subjects were unable to afford to see a doctor at a time that they needed healthcare during the last year. The results for this analysis in the years 2001, 2003 and 2004 are almost identical to those for uninsured rates (Figure 21) [88]. Hispanics have the highest unable to afford care rate, 2.5 times higher than non-Hispanic Whites [88]. African Americans and the group of other races have an unable to afford care rate that is about 1.75 times higher than non-Hispanic Whites [88].

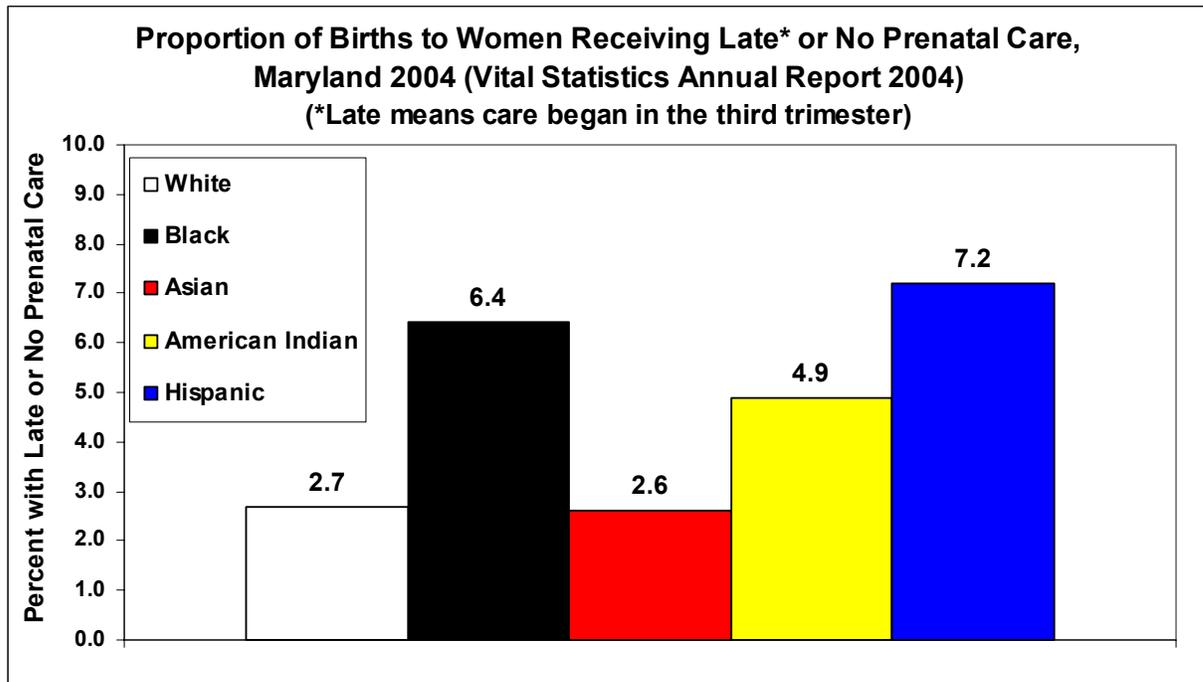
**Figure 21. Disparity in Ability to Afford Healthcare, Maryland 2001, 2003 and 2004 Pooled Data**



Source: Pooled data from Maryland BRFSS [88]

Vital records data includes information on the timeliness of prenatal care, and this is reported in the Maryland Annual Vital Statistics Reports. Disparities in the percent of pregnant women who receive late or no prenatal care (late prenatal care means care that did not begin until the third trimester) are shown in Figure 22. Compared to Whites, African Americans and Hispanics were about twice as likely, and American Indians about 1.5 times more likely, to receive late or no prenatal care in 2004 [84]. Asian rates of late or no prenatal care were similar to Whites in 2004 [84], but had been slightly higher than Whites in the three previous years.

**Figure 22 Disparity in the Timeliness of Prenatal Care.**



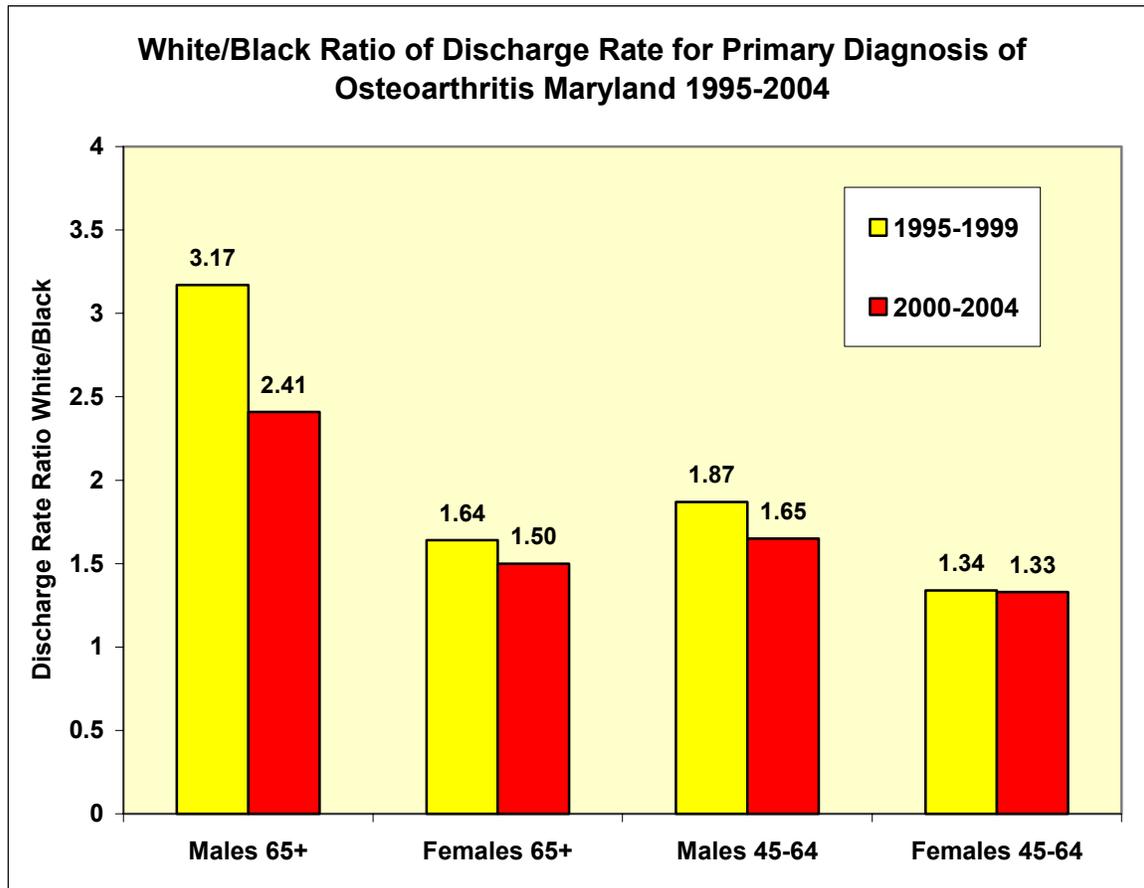
**Source: Maryland Annual Vital Statistics Report 2004 [84]**

Disparities also exist in the receipt of other beneficial healthcare services. An example of this is the disparity in joint replacement surgery for arthritis. Data from the BRFSS indicate that for adults age 45 or older, the rates of arthritis are similar for African Americans and Whites [88]. In addition, African Americans report more activity limitation due to arthritis than do Whites [88]. Thus, arthritis is equally common between the two races, and perhaps somewhat more severe in African Americans. Therefore, we would expect the need for joint replacement surgery to be similar for the two races.

Discharge data from the Maryland Health Services Cost Review Commission indicate that African Americans age 45 or older are less likely than Whites to get joint replacement surgery [91]. This is shown in Figure 23. The figure displays the disparity in the rate of hospital admissions (discharges) for a diagnosis of osteoarthritis, the most common form of arthritis (chart shows how many times higher the White rate of admissions is compared to African Americans). Since more than 90 percent of these admissions are for a knee or hip joint replacement [91], these ratios also represent the disparity in the use of joint replacement surgery.

It is notable that the disparity is particularly large for males age 65 or older, where Whites were three time more likely to have this surgery in 1995 to 1999, and 2.4 times more likely in 2000 to 2004 [91]. Figure 23 shows that the magnitude of disparities may be different for different age groups or genders, and it does show that for most age-gender groups, some progress has been made in reducing this disparity.

Figure 23. Disparity in Hospital Admissions for Osteoarthritis (which represents disparity in joint replacement surgery)



Source: DHMH analysis of Maryland HSCRC discharge data [91]

## Comparing Disease Occurrence to Disease Consequences

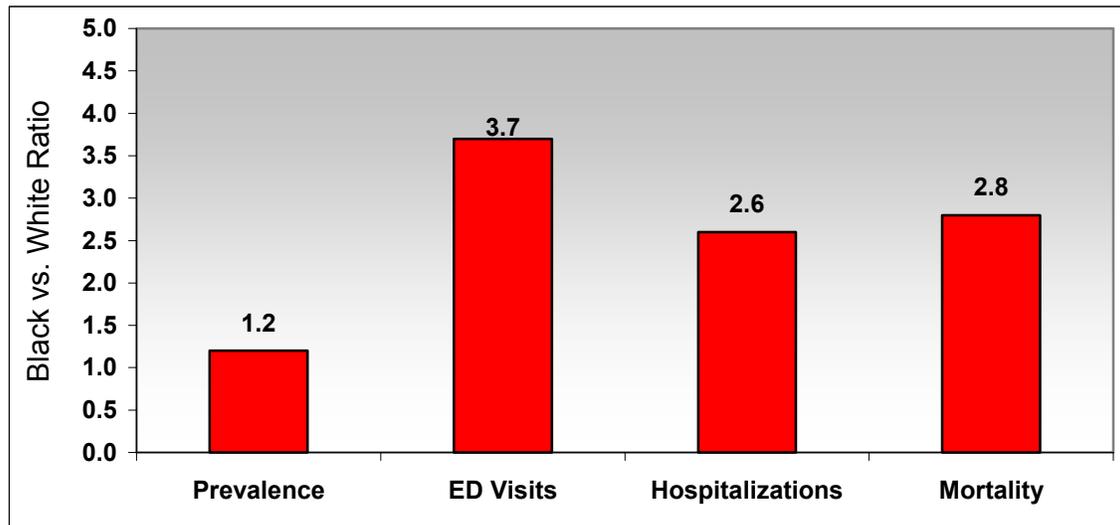
One approach to evaluating health disparities data that helps to target interventions is to compare the disparity in the incidence of a disease to the disparity in the consequences of the disease: complications, disability, healthcare utilization, and mortality.

Considering HIV/AIDS, the 2003 rate of new cases of HIV was 16 times higher for African Americans than for Whites [90], and the age-adjusted mortality from HIV/AIDS in 2004 was 13 times higher for African Americans [84]. This is an example where the disparity in the adverse outcome, in this case mortality, is driven primarily by the disparity in the rate of new cases. Even if access, quality of care, and resultant treatment success were equal between African Americans and Whites, as long as double-digit disparity ratios in new cases exist, double-digit disparities in mortality will persist. Eliminating this mortality disparity will require finding a solution to the disparity in the rate of new cases.

In diabetes, the data showed that for 2001 to 2004 combined, the percent of African Americans with diagnosed diabetes was about twice as high as that percentage among non-Hispanic Whites [88]. The data on ESRD from 1991 to 2001 combined showed that new cases of ESRD were two to six times higher (depending on age) for African Americans than for Whites [89]. This is an example where the disparity in the adverse outcome is about equally due to disparity in the prevalence of the disease, and to disparity in successful management of the disease. Solving either the prevalence disparity or the management disparity alone will still leave about a two-fold disparity in new cases of ESRD. To eliminate the disparity in ESRD, about equal effort toward disparities in disease occurrence and disparities in disease management is required.

Asthma in adults is an example where the disparities in consequences are primarily a result of the disparity in disease management. Data from the DHMH report “Asthma in Maryland 2004” are presented in Figure 24 [92]. The prevalence of asthma, from the Maryland BRFSS, is 1.2 times higher for African Americans than for Whites. Based on that, it might be expected that African American adults experience 1.2 times as many asthma emergency department visits, asthma hospitalizations, and asthma deaths. However, African Americans experience 3.7 times as many asthma emergency visits, 2.6 times as many asthma hospitalizations, and 2.8 times as many asthma deaths [92]. The disparity in these asthma consequences indicates that African Americans experience less treatment success in managing asthma. Treatment success for asthma depends on access to care, quality of provider treatment planning, and the ability of patients to carry out their treatment plan at home (understanding of plan, affordability of medications and devices). It also depends on the ability to remove asthma triggers from the patient’s environment. Individual differences in asthma severity and in patient responsiveness to or side effects from medications also influence treatment success. Elimination of the disparities in asthma outcomes will only occur when the disparities in asthma treatment success are eliminated.

**Figure 24 African American vs. White Disparity Ratios for Adults with Asthma, Maryland 1999-2003**



**Source: Asthma in Maryland 2004 [92]**

There are more areas where minority health disparities are likely to exist in Maryland than can be included in this document. The Office of Minority Health and Health Disparities is in the process of assembling available data to delineate minority health disparities that may exist in Maryland in the areas of Mental Health, Substance Abuse, Disabilities, Oral Health, Environmental Health, and Infectious Disease.

### **Success in Reducing Cancer Mortality Disparities in Maryland**

Tobacco settlement funds have been used in Maryland to implement a Cancer Control Program. One goal of the program was to target minority populations to reduce their cancer health disparities. Beginning in Fiscal year 2000, funds were distributed to each local health department and to minority organizations throughout the state. The health departments and the minority groups were charged with working together to reach all populations with a special emphasis on reaching minorities. They focused on awareness and screening and in fiscal year 2006, 67 percent of the nearly 8,000 persons screened were minorities.

In the five years since the inception of the targeted efforts within the CRFP to reduce minority disparities in cancer, the difference between the age-adjusted cancer mortality rate for African Americans and Whites has been cut in half. This is illustrated in Figure 25. From 2000 to 2005, the cancer mortality rate for Whites decreased by eight percent, while over the same period, the cancer mortality rate for African Americans decreased by 16 percent. This resulted in a 51 percent decrease in the difference between the mortality rates, from a difference of 44 per 100,000 in 2000 to 22 per 100,000 in 2005. The application of similar targeted disparity reduction efforts to the other conditions where health disparities exist in Maryland could result in similar reductions in those health disparities.

**Figure 25. Reduction in the Cancer Mortality Disparity for African Americans in Maryland, 2000-2005**

Cancer Mortality Rates, Rate Differences, and Percent Change, By White or Black Race, Maryland 2000 and 2005 (rates are age-adjusted rates per 100,000)			
	2000	2005	Percent Decrease
<b>Black Cancer Mortality</b>	246.0	207.7	15.6%
<b>White Cancer Mortality</b>	201.6	185.7	7.9%
<b>Mortality Difference</b>	44.4	22.0	50.5%

Source: Maryland Vital Statistics Annual Report 2000 [84]

### Minority Representation in the Maryland Health Workforce

According to 2005 Maryland Vital Statistics, more than 40 percent of the Maryland population was comprised of ethnic and racial minority groups. However, as is illustrated in Table 11, Maryland’s physician workforce does not reflect the changing demographics of the state. In 2004, only 7.0, 3.0, 12.0, and 0.04 percent of physicians were African Americans, Hispanics, Asian/Pacific Islanders, or Native Americans respectively. A growing percentage of Maryland minorities are foreign born, which only amplifies existing barriers to receiving appropriate healthcare, further contributing to health disparities. As illustrated in the Plan there is a direct link between poorer health outcomes for minorities and the shortage of minority healthcare providers.

Maryland has three landmark medical schools: the oldest public medical school in the nation (University of Maryland at Baltimore); the only military medical school in the nation (Uniformed Service University) and Johns Hopkins University, which ranks top of the 2006 U.S. News and World’s Report Hospitals’ Honor Roll. As illustrated in Figure 26, data received from the Association of American Medical Colleges (AAMC) illustrates a gradual increase in the percentage of Under Represented Minority matriculants into these schools between the years 1998 and 2005. This brings Maryland’s percentage for Under Represented Minorities of 14.6 percent, close to the national average of 15.3 percent. As shown in, AAMC data illustrates that African Americans make up more than *one fifth* of Maryland residents applying successfully to medical schools nationally. It also illustrates that African Americans accepted to a medical school nationally are less likely to matriculate into a Maryland medical school as compared to their White counterparts. Figure 28 shows a relatively high percentage of African Americans practicing in Maryland which ranks third in non federal African American physicians after the District of Columbia and Georgia [93]. This suggests a high level of interest in medical careers and competitive abilities within Maryland’s African American population. In addition, the level of African American physicians practicing in Maryland probably reflects the growing state’s diversity, the large numbers

of Historically Black Colleges and Universities (HBCUs) in the area, and the documented fact that under-represented physicians are more likely to serve in under-served areas.

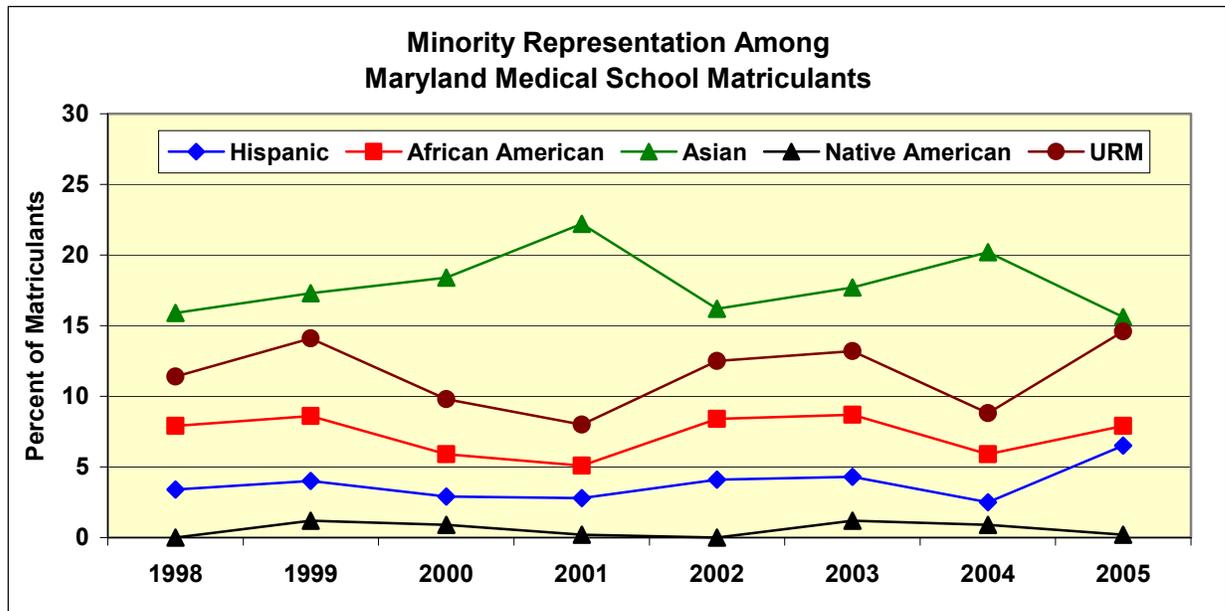
**Table 11. Maryland Distribution of Nonfederal Physicians by Race, 2004**

	Maryland (n)	Maryland %	US (n)	US %
White	9,944	46	415,775	51
Black	1,518	7	24,343	3
Hispanic	544	3	29,968	3
Asian	2,635	12	87,962	11
Native American	8	0.04	481	0.06
Other	494	2	18,806	2
Unknown	6,459	30	244,576	29
Total	21,602	100	821,911	100

Notes: U.S. totals include territories. Nonfederal physicians are not employed by the federal government and include medical doctors and osteopaths. They represent 98 percent of total physicians.

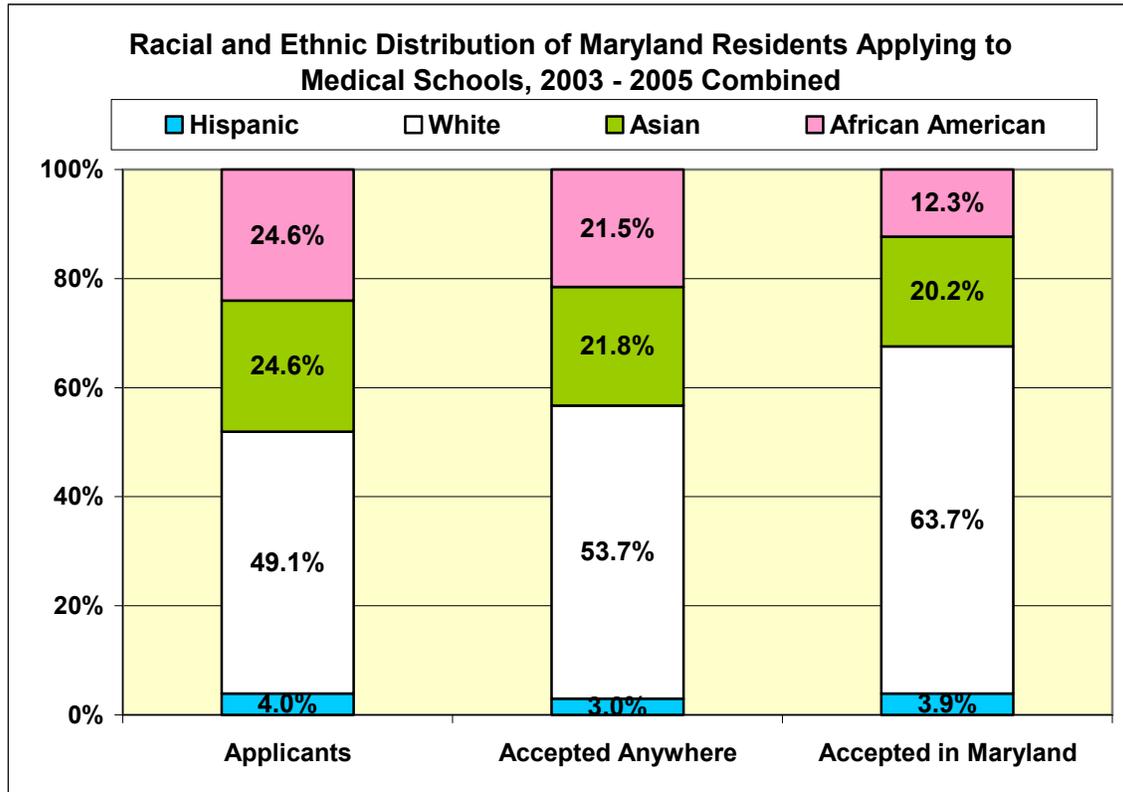
Sources: Kaiser Family Foundation Health Facts Viewed May 25, 2006

**Figure 26 Maryland Medical Schools' Matriculation Data by Race and Ethnicity, 2002-2005**



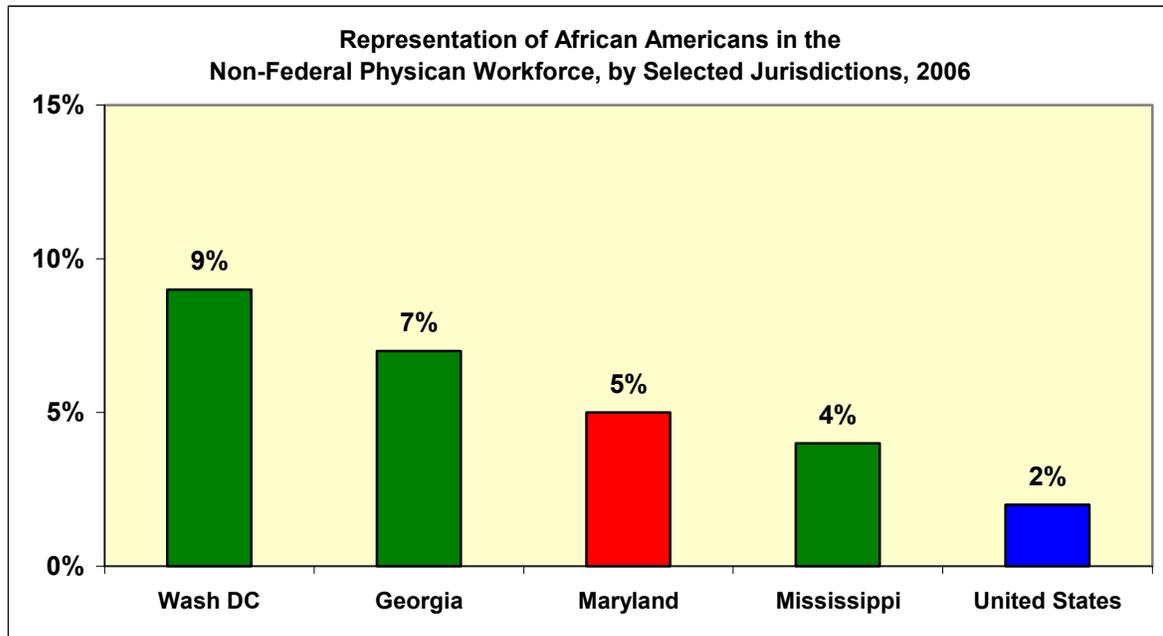
Source: AAMC Data Warehouse 2006

**Figure 27. Medical School Application, Acceptance and Matriculation by Legal Residency in Maryland, Pooled Data 2002-2005, AAMC**



Source: AAMC application and admissions data

**Figure 28 Representation of African Americans in the non-federal Physician Workforce, by State and the District of Columbia, 2006**



Source: Kaiser Family Foundation, State Health Facts, 2006 [93]

Education concerns, especially the promotion of health careers in minorities, have been raised in every region of Maryland, with particular interest focused in the Upper Eastern Shore, Southern Maryland and the National Capital which includes Prince George's and Montgomery counties. In response to this issue the Maryland state legislature has passed two bills which address a lack of minorities in the health professions: HB 1127 which established a statewide commission on the shortage in the healthcare workforce [94] and SB 230/HB 322, the Nurse Support Program Assistance Fund to attract and retain minorities as practicing nurses or faculty in the state [95].

## **Cultural Competence in the Maryland Healthcare System**

*Maryland Vital Statistics* of 2005 illustrate that ethnic and racial minorities already make up more than 40 percent of the population (Black-29.9 percent; Hispanic-5.7 percent; Asian American Pacific Islander-5.1 percent; and American Indian-0.4 percent). Moreover, at the time of the U.S. Census of 2000, 54 percent of Maryland's Hispanic/Latino population was foreign-born, as was 10 percent of the state's general population [96]. In 2005 the state's foreign-born population had increased to 12 percent [85]. With increasing numbers of foreign-born persons residing in Maryland, the burden of health disparities in the population will only escalate if healthcare providers are not equipped with cultural competency skills to effectively communicate and understand the belief system minorities use to make decisions about their healthcare.

Maryland's efforts to increase cultural competence have included: awarding grants for this purpose, planning a statewide conference on cultural competence, and designating staff members with responsibility for cultural competence. In addition, the state legislature introduced and passed several legislative initiatives to address the issue of cultural competency among its healthcare professionals. House Bill 883, which was enacted into law in 2003 states in Section-1, Subtitled-8: "encourage courses or seminars that identify and eliminate healthcare service disparities of minority populations." Furthermore, House Bill 1455 passed in the 2006 legislative session requires the DHMH Family Health Administration, in consultation with the Office of Minority Health and Health Disparities, to "implement a pilot program that addresses: (1) cultural competency training of healthcare providers, with an emphasis on community-based providers; and (2) health outcomes...by tracking indicators related to the specific healthcare needs of the population in a specific area." This initiative is crucial as it provides unprecedented effort to assess the clinical utility of cultural competency training. Also, legislators introduced a bill (HB 1295: Cultural Competency Workgroup) in the 2006 legislative session requiring the department to organize a workgroup of representatives from each of the health occupations boards and the Office of Minority Health and Health Disparities to "develop specified recommendations for requiring cultural competency instruction as part of an individual's licensure or license renewal process." The bill did not pass, however, legislators requested that the department form a workgroup to address the issues raised in the legislation.

Another state initiative stipulates that when submitting Requests for Proposals under the regulatory authority of the Code of Maryland Regulations (COMAR), Managed-Care Organizations (MCO's) are required to conduct an analysis of culturally diverse populations and develop strategies to address these needs. An MCO shall provide access to healthcare services and information in a manner that addresses the individualized needs of its enrollees. COMAR requires the delivery of services and information to enrollees "in a culturally sensitive manner that facilitates an understanding of the MCO's benefits package and how to access care, and generally enhances communication between enrollees and their healthcare providers..." The regulations also require that "an MCO's healthcare delivery system shall accommodate the cultural and ethnic diversity of the population to be served" and that "all written materials produced by the MCO for distribution to its enrollees written at an appropriate reading comprehension level, and in the enrollee's native language for enrollees who are members of a substantial minority [97]."

Importantly, Maryland is one of seven states nationally to be awarded a Mental Health Transformation Grant of \$13.5 million from the federal Substance Abuse and Mental Health Services Administration (SAMSHA). The funding enables the state to improve the quality of delivery of mental health services in Maryland. One of the core charges of this initiative is to assure cultural competency in the delivery of mental health services to diverse populations.

Finally, the Delmarva Foundation, Medicare's Quality Improvement Organization in the state of Maryland, has been awarded a contract to promote cultural competency education among primary care physicians. The physicians can earn up to nine CME credits free of charge. The program involves the completion of an online educational tool – the Cultural Competency Curriculum. The curriculum, entitled *A Family Physician's Practical Guide to Culturally Competent Care*, was developed for the U.S. Office of Minority Health as one strategy to eliminate racial and ethnic disparities. Increasing a health professional's cultural competence provides better avenues for effective communication with the growing number of foreign-born minorities and improves awareness of culturally sensitive issues pertinent to minorities in Maryland.

## V. CHALLENGES AND SOLUTIONS TO ELIMINATING MINORITY HEALTH DISPARITIES IN MARYLAND

There are many causes of health disparities, many of which are rooted in a long history of inequality and social injustice. As social inequality is hundreds of years in the making, there are no easy solutions or “quick fixes” for health disparities. The challenges that need to be addressed in eliminating health and healthcare disparities in Maryland involve multiple levels including the physical environment, the social environment, the healthcare system, and patient factors. More specifically, these involve lack of access to quality and timely healthcare contributed to by financial barriers to healthcare resulting in lack of insurance or limited insurance; cultural and linguistic barriers to care; lack of regular and consistent healthcare; and lack of reliable data sources to track and monitor health disparities.

One approach to addressing these challenges to solving health disparities is a new framework for researchers and policy makers that has been suggested by Kilbourne et al. (2006) [11]. This framework sets a clear trajectory from *identifying* disparities, to *understanding* their cause and then tailoring *interventions* to addressing them. These phases deal with defining health disparities and identifying populations that are affected; exploring the reasons for the existence of differences in health; and finally developing, implementing and evaluating measures to address the causes of such differences.

The Office of Minority Health and Health Disparities has approached the *identification* step by reaching out to key stakeholders around the state, identifying and defining problems, and assisting others with the design, implementation and evaluation of process and outcomes. Data collection and monitoring, as well as the development of Managing for Results (MFRs) measures targeting health disparities, will boost the focus of resources on individuals and populations that have the most need. Identification of affected communities and engaging key stakeholders around the state contributes to *understanding* the causes of health disparities. Finally, disseminating health disparities information, providing technical assistance to various health initiatives around the state aiming to eliminate health disparities, and implementing Maryland’s existing legislation all contribute to effective *interventions*. Importantly, the solutions to health disparities are anchored in the providers, patients, clinical encounters and the healthcare system as a whole.

## **Key Strategies for Addressing Maryland Health Disparities**

These strategies are based on an extensive search of the most current literature, best practices and research on health disparities. Most importantly, it is anchored in recommendations made by the people of Maryland during a series of public forums, annual conferences, and four advisory committees engaging more than 1,200 stakeholders representing diverse groups. The key strategies that emerged from the public discussions and dialogues are summarized below and grouped together based on common themes. A listing of the recommendations as received from the four committees and numerous public forums are located in Appendix 6.

### **Statewide Collaborations**

It is imperative to capitalize on the wealth of resources that currently exist in the state with regard to eliminating health disparities.

- There are numerous groups and organizations in Maryland within the public, private, and academic sectors that are funded to address health disparities. Coordination, partnership and on-going communications will maximize efficiency and reduce the likelihood of duplicating efforts.
- Establish a state-wide advisory group, bringing together all entities within the state with a mission to eliminate minority health disparities.
- Foster community-institution partnerships in the state through a granting mechanism stipulating community involvement
- Empower grassroots organizations and community groups to become equal partners with academic centers by educating them about their rights and responsibilities

### **Access to Quality Healthcare Services**

The key goal is that access is viewed as a process of receiving *quality* care, in a *timely* fashion and in a culturally and linguistically meaningful way.

- Foster statewide collaborations between the state and key stakeholders such as hospitals, businesses, the insurance industry, safety net providers and consumers to assure that no Marylanders are without health coverage.
- Remove physical, transportation, cultural, linguistic and fiscal barriers to healthcare.
- Develop evidence-based guidelines should be developed and used in the clinical setting for all patients.

- Assure treatment success by applying culturally consistent patient-centered interventions when implementing evidence-based guidelines.

### **Health Professional Education and Minority Recruitment and Retention**

In order to address the cultural variation in perceptions of disease causation, diagnosis, and treatment it is imperative to diversify the health workforce community and to increase the cultural competence of all healthcare providers.

- Increase the number of minority students majoring in mathematics and sciences who choose health careers.
- Support racial and ethnic minority college students majoring in mathematics and science by offering on-going mentorship, study group participation, and extended opportunities for research in health professions.
- Partner with health professions schools in the state to increase awareness of the need for workforce diversity and of successful strategies for minority recruitment and retention.
- Encourage state academic institutions to develop post-baccalaureate programs that prepare college graduates for successful applications to health professions schools.
- Enhance preparation of K-12 grade students from groups that are under-represented in health professions in mathematics and sciences.
- Expand the number and scope of pre-college summer programs for high school graduates to enhance their preparation for the college experience.
- Increase the representation of minorities among senior level faculty and administrators in predominantly White institutions to foster a more supportive climate for minority students.
- Facilitate the training and preparation of eligible foreign-trained health workers to meet U.S. licensure and certification requirements.
- Incorporate cultural competency training into the Continuing Medical Education experience, health professions schools' curriculum, in-service training, licensure and re-licensure of all healthcare providers and healthcare trainees in the state.

### **Measuring and Monitoring Health Disparities**

It is critical that complete and accurate racial and ethnic information becomes part of all health and healthcare data systems. Reports on health status and healthcare quality

must be analyzed by race and ethnicity in order to identify disparities and to track progress.

- Develop data on racial and ethnic minority groups and sub-groups for whom data is presently inadequate.
- Achieve complete and transparent data collection system in compliance with state and national standards.
- Collect data on race and ethnicity, by self-identification where possible, in all health data systems, so that health status and healthcare access and quality can be assessed by race and ethnicity.
- Standardize Maryland's health data systems methods of data collection and analysis, so that comparisons of reports from different systems can be made, and so that data might be combined across data systems for analysis.

### **Funding Strategies**

The multitude of factors that need to be addressed in order to eliminate health disparities demand extensive resources, which is a major challenge given limited state and federal funds.

- Fund pilot projects statewide that stand to have the greatest impact on reducing health disparities (such as oral health, cancer prevention, AIDS, etc.).
- Fund demonstration projects within DHMH that will target major areas of health disparities in the state.
- Make available funds to the state's public education system in optimizing educational opportunities in K-12 programs and in two and four year colleges.
- Foster partnerships and collaborations between centers for health disparities around the state to maximize the resources and impact of these centers.
- Provide resources to develop an effective infrastructure for the Office of Minority Health and Health Disparities to implement recommendations to implement programs to eliminate health disparities.

This section has presented major challenges to addressing minority health disparities as well as suggested solutions to tackling these. These solutions emerged both from scientific wisdom, and engaging the public in Maryland. It is acknowledged that efforts to eliminate minority health disparities have already begun throughout the state and are now gaining momentum. Achievements such as reduced mortality from cancer, increased understanding of the intricacies of community engagement and closer collaborations between institutions and communities are only some of the strides made. Eliminating health disparities must be viewed as a multi-tier, multi-player process happening one community at a time. This Plan illuminates the need, showcases the immense resources that already exist and guides the way to effectively addressing the problem of health disparities.

## VI. CONCLUSIONS AND FUTURE PLANS

An extensive statewide planning process unfolded over a period of two plus years involving a broad spectrum of health experts, advocates, community groups and individuals. This process documented continuing health and healthcare disparities among ethnic and racial minorities mirroring the picture in other states and the nation. While there is growing awareness about the extent of the problem, there are few instances where systematic interventions and statewide policies are in place.

The good news is that Maryland's initiative to eliminate health disparities is picking up momentum. There is broad consensus that now is the time for action. The 2006 *Maryland Plan to Eliminate Minority Health Disparities* provides a framework and foundation for action by many sectors of the health industry and across policy makers. Several themes emerged during the planning process. First, there must be greater awareness of health disparities and their adverse impact on citizens and on the economy of the state; second, health status data must be displayed by race and ethnicity and in small jurisdictions such as county or census tract; third, budgets and program interventions must be more directly focused on the individuals with preventable illness and disease; and fourth, all program interventions must be evaluated to measure not only the process but more importantly, outcomes for specific population groups.

An unexpected finding from the process is how gratified people were at having an opportunity to talk among themselves about how health disparities affected their lives and to hold a dialogue with government and other officials who deliver healthcare in Maryland. Many persons asked for future opportunities for ongoing dialogue and participation in solutions.

The future looks promising. The Department of Health and Mental Hygiene is committed to placing an increased focus on the reduction of health disparities. The plan of action includes:

**Implementation:** The Office of Minority Health and Health Disparities will convene work sessions with health professional colleges and universities to review existing standards that promote cultural competency and collaborate in advancing the science and sharing best practices throughout the programs. The Office, in collaboration with DHMH programs, will market the Plan to key stakeholders to take strategic action steps that target the reduction of specific health disparities among affected population groups in Maryland. Partnerships will be developed among public and private sector agencies and include community participation

**Coordination:** The Department of Health and Mental Hygiene and the Office of Minority Health and Health Disparities will use its resources to foster collaboration among programs and promote networking across the state. A clearinghouse of health disparities information will be made available to interested parties. The [www.mdhealthdisparities.org](http://www.mdhealthdisparities.org) Web site will be maintained with current information and resources. Statewide conferences and regional and local workshops will be held to involve a cross section of communities and health providers.

**Tracking and Reporting:** The office will develop a system for monitoring implementation tasks and results and providing reports on the Web site. The major health disparities will be presented in a Maryland Health Disparities Chartbook.

Elimination of minority health disparities in Maryland will require action by all of the concerned stakeholders, in addition to the efforts of the Department of Health and Mental Hygiene. The subsequent page contains a request for input in the ongoing development of a comprehensive set of specific *commitments to action* by various stakeholders to eliminate minority health disparities in Maryland.



# CONTRIBUTE TO A WORK IN PROGRESS

## MARYLAND STATEWIDE PLAN FOR ELIMINATING MINORITY HEALTH DISPARITIES

### A CONTINUING PROCESS

This draft of the Maryland Statewide Plan for Eliminating Minority Health Disparities includes over 1,000 gathered comments from stakeholders throughout the State. While the comments and recommendations included in the Plan have come from a diverse group of stakeholders, the document is not exhaustive in its present form. In addition to dialogue around this current document, it is important that we begin to examine steps that communities can take to address health disparities that exist in Maryland. Eliminating minority health disparities in Maryland is an ongoing endeavor and will require continued effort.

### WE WELCOME AND VALUE YOUR FEEDBACK

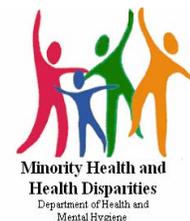
We welcome comments, ideas, or suggestions on this draft of the plan in the areas of:

- Additional topic areas to be addressed
- Ideas for implementing stakeholder recommendations in communities
- Community actions for eliminating health disparities
- Other related issues

### CONTACT US!

You may mail, fax, or e-mail your comments to:

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Website: [www.mdhealthdisparities.org](http://www.mdhealthdisparities.org)



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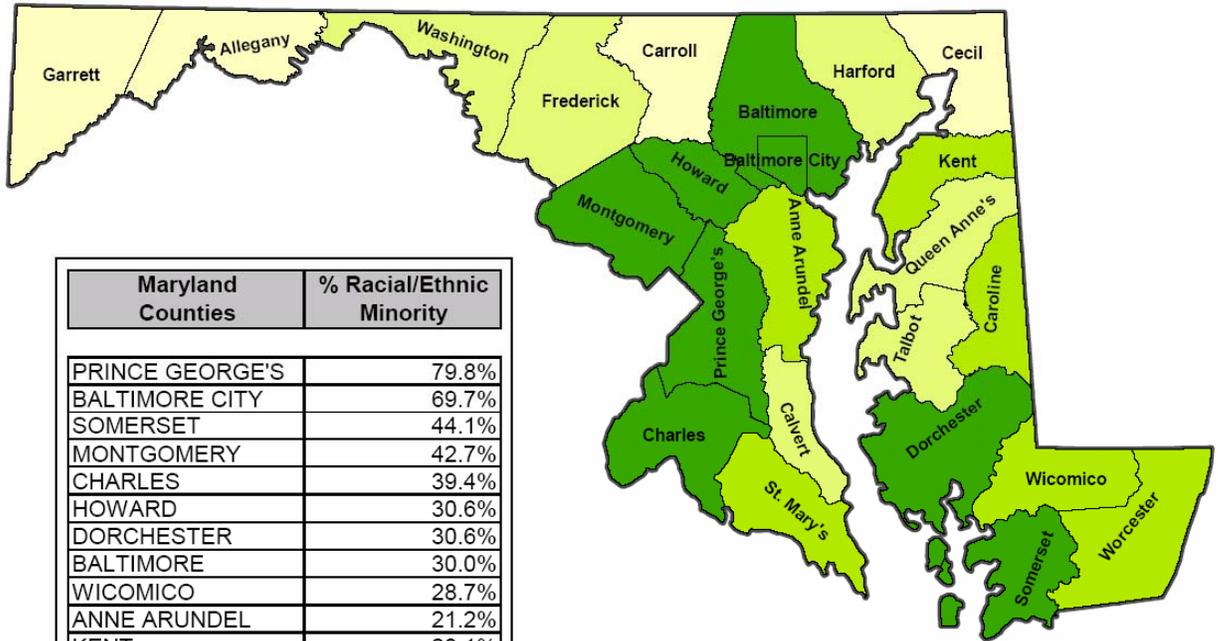
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### Appendix 3. Timeline of Health Disparities' Events

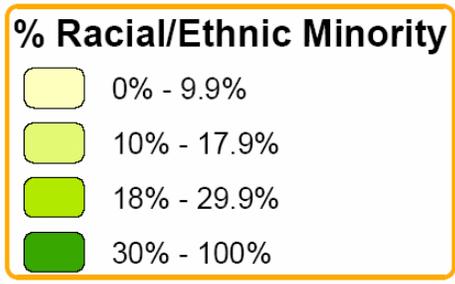
Date	Event
1943	Report of the Maryland Governor's Commission on Problems Affecting the Negro Population
1964	Civil Rights Act
1965	Social Security Act Amendments established both Medicaid and Medicare
1977	The Office of Management and Budget issues the Race and ethnic Standards for Federal Statistics and Administrative Reporting
1985	The U.S. Department of Health and Human Services (HHS) Task Force on Black and minority Health released it's Report of the Secretary's Task Force on Black and Minority Health
1986	HHS establishes the Office of Minority Health.
1987	<i>Now is the Time: Action Agenda for Improving Black and Minority Health</i> report by Maryland Governors' Commission
1989	Hispanic origin and decedent's education were added to live birth and death certificates
1990	National Institutes of Health (NIH) establishes an Office of Research on Minority Health (ORMH)
1998	Racial and Ethnic Health Disparities Initiative initiated by President Clinton
1999	Kevin Schulman and colleagues publish article titled <i>The effect of race and sex on physicians' recommendations for cardiac catheterization</i>
1999	IOM publishes <i>The Unequal Burden of Cancer: An Assessment of NIH Research and Programs for Ethnic Minorities and the Medically Underserved</i>
1999	Congress requests an IOM study to assess the extent of disparities and quality of health services received by minorities and non-minorities
2000	NIH establishes the National Center on Minority Health and Health Disparities
2000	National Standards for Culturally and Linguistically Appropriate Services (CLAS) in health care published in the Federal Register (Volume 65, Number 247, Pages 80865-80879).
2001	IOM publishes <i>Crossing the Quality Chasm: A New Health System for the 21<sup>st</sup> Century</i>
2001	The Maryland Department of Health and Mental Hygiene Health (DHMH) Maryland PROJECT 2010 publishes <i>Health Improvement Plan</i>
2002	DHMH publishes <i>Healthy Maryland Chartbook 2002</i>
2002	IOM publishes <i>Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care</i>
2003	The Maryland Legislature passes HB 883 entitled the Health Care Services Disparities Prevention Act.
2003	The Maryland Comprehensive Cancer Control Plan published
2003	Agency for Healthcare Research and Quality releases the first <i>National Healthcare Disparities Report</i> .
2004	DHMH publishes the <i>Maryland Asthma Control Plan</i> .
2004	Maryland Office of Minority Health and Health Disparities is established.
2004	Maryland holds its first Conference on Health Disparities.
2005	DHMH receives five-year federal grant for "Maryland Eliminating Disparities – Now" project.

## Appendix 4: Minority Population Map

Percent of Population that is a Racial or Ethnic Minority Group, Maryland 2004



Maryland Counties	% Racial/Ethnic Minority
PRINCE GEORGE'S	79.8%
BALTIMORE CITY	69.7%
SOMERSET	44.1%
MONTGOMERY	42.7%
CHARLES	39.4%
HOWARD	30.6%
DORCHESTER	30.6%
BALTIMORE	30.0%
WICOMICO	28.7%
ANNE ARUNDEL	21.2%
KENT	20.1%
ST MARY'S	19.0%
CAROLINE	18.9%
WORCESTER	18.2%
TALBOT	17.8%
CALVERT	16.3%
HARFORD	15.6%
FREDERICK	14.3%
WASHINGTON	11.8%
QUEEN ANNE'S	10.5%
CECIL	7.9%
ALLEGANY	7.4%
CARROLL	5.8%
GARRETT	1.3%



## Appendix 5: Statewide Health Disparities Committee Members

### Health Professional Education Committee

<p><b>Co-Chairs</b></p> <p>Trudy R. Hall, MD, PA Myron L. Weisfeldt, MD Sonia Fierro-Luperini, MD</p> <p><b>Members</b></p> <p>Susan Antol, MS, RN Mary Catherine Augustyn Susan Bailey, MD Dorcas Baker, RN Marian Batts-Turner, MSN, RN, CDE Diane Becker, MPH, ScD Antoine Carey Vasana Cheanvechai, MD Cecile Chenelle Diana Cheng Brenda Christie Michelle Clark-Green Beverly A. Collins, MD, MBA, MS Yvette Colo'n, MSW Vincent Conroy, PT Lisa Cooper-Lucas, CEAP LPC Linda Darrell, LCSW Allison DelBene Davis, MS, RN Russell Dick, LCSW-C Eric Dunn</p>	<p>Lauren Edukat Rhiannon Fitzsimmons, PharmD Gerhard Friedrich Felicia Y. Frizzell Maureen George, PhD, RN, AE-C Bernard Gibson Arlee Gist Cindy Goss Miryam Granthon Tily Gurman Ann Halbower, MD Sheila Higdon Martha Hill, PhD, RN, FAAN Angela Hoban Lisa Horne Carlessia Hussein S. Diane Iverson, RN Claudia John Marilyn Johnson Njeri J. Jones, MPH, CHES Adam Kaplin, MD PhD Shivonne Laird, MPH Lena Lee Nancy R. Lowitt MD, Ed.M Dora Mamodesene, MD Hayley Mark, PhD, RN Asenith Debbra Mayberry</p>	<p>April Meise Jennifer Miles-Thomas, MD Igor Milosevic Julia Mitchner Nduku Ndumbu Kerry Oberdalhoff, BA Kathy Paez Ryan Pasternak, MD MPH Ashley Pistorio Keith Plowden Tami Pusateri Sarah Reading, MD Tricia Reedy Iris Reeves, MSW Brenda Ross, MD Renee Royak-Schaler Chanchai Sapun Nayan R. Shah, M.D Betsy D. Simon, MS, CHES, CPS Diane Skojec, MS, CRNP Rachel Smith, PhD, RN Terry Socha Simbonika Spencer, MPH David Stein, MD, MPH Mary Tabeling Elizabeth Tanner, PhD, RN</p>	<p>Ashley Varner, LCSW-C Colin D. Weeks H. Douglas White, MS, RN Anika Wilkerson Dell M. Williams Emilio Williams Simon Williams David Zauch</p>
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## Identifying Funding Strategies Committee

<p><b>Co-Chairs</b></p> <p>Chris Gibbons, MD, MPH Patricia Horton, RN, MBA T. Michael Preston, JD</p> <p><b>Members</b></p> <p>Luline Almonacy Ernestine D. Anderson Sharyn Baker, PhD, Pharm.D, Kathleen C. Barnes, PhD Cyntrice Bellamy-Mills Anita Bemis-Dougherty, PT, MAS Mollye Block Lois Brass-Ernst, BSN CCRP Tina Brown. Sapun Chanchai Patricia Chenevert- Anderson, BSN, RN, MSA, CCM</p>	<p>Phillip Christian, MD Russell Davis, MD Jessica Foster Wendy Friar, RN, MS Fannie Gaston- Johansson, Dr.Med.Sc, RN, FAAN Debbie Gold Larry Gourdine Michelle Gourdine, MD Shelly Grant, BS Pastor Bertha Green Gene Green, MD Carlessia Hussein Roseline Ikeakanam Phyllis Kalar Metassebia B. Kanno, MD Miyong Kim, PhD, RN, FAAN David Paul Kuwayama, MD</p>	<p>Ron Lessard Terries Lewis Angela Liggins Jimmie Lin C. Alan Lyles, ScD, MPH, RPh Maureen Masarik,MS Michelle McBride Sherry McCammon Michelle Mehrling, MBA Lorrie Mills Sonia Mora Sam Mukherjee Charles Myers Laura Neisser Kenneth Pack</p>	<p>Joyce Pollard Nadia Sawaya Bassam Sayad Duane Shelton Nicole Simone Steven J Stafford Abeva Tesfaye, PhD Helene Tipton Patrick Toomey Patricia Ann Tracey Joshua Wisell, MD</p>
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## Access to Quality Services Committee

<p><b>Co-Chairs</b></p> <p>Claudia Baquet, MD, MPH          Sherry McCammon          Bonita Pennino, MS          Alma Roberts, MPH, FACHE</p> <p><b>Subcommittee Chairs</b></p> <p>Lisa H. Green, PhD, System Barriers to Quality Services</p> <p>Stacey Davis, Financial and Geographic Barriers to Access</p> <p>Donna Lee, RN, MA, Improving Health Promotion and Disease Prevention</p> <p><b>Members</b></p> <p>Marcela Aguilar, MHS          Tashuna Albritton, LCSW          Pierre K. Alexandre          Sandra Amaral, MD, MHS          Jean Anderson, MD          Andrews Barbara          Susan Antol, MS          Juilie Bawa          Harolyn Belcher, MD, MHS          Karl Bezak, BS          Mindy Binderman          Mark Bratus          Donna R. Brown          Matthew Burkey          Fay Burrs, RN</p>	<p>Karen Caffi-Lalle, RN, MSN          Victoria Chou, MS          Marty Cifrese          Nancy Codori, MD MPH          Barbara Cook, MD          Frederick Corder, MD          Deidra Crews          Michael Crocetti, MD          Theresa Cruthird-Rudd          Irene Dankwa Burdoo, MD          Elizabeth Davis          Gregory Diette, MD          Anna Dillingham          Joyce K. Eierman          Lisa Eldridge          Maria Eng          Amy Entis, RN, MS          Camellus Ezeugwu, MD          Tim Farrell, LCSW-C          Carrie Freitag, MBA          Joanne Fritz Kraus          LaEver Haggerty          Stephanie Hammonds          Alison F.Henderson, MD          Keith Hobbs          Pearl Holland          Angela Hunt          Alva Hutchison          Keri Hyde          Roosevelt Jordan          John King          Louise Knight, MSW          LCSW-C          Joanne Kraus          Sharon Kreitzer, RN, BS</p>	<p>Soula Lambropoulos          Terry Langbaum          Jennifer S Lee          Nicole Anderson          Leonard, JD          Denise Leung, MD          Pearl Lewis          Herbert Lodder          Kara Malone          Jackie L Martin, Jr., MD          Cheryl McDuffie          Paula McLellan          Dt. Theresa Miller          Christine Moghimi          Patricia Morales          Adrian Mosley          Mahnaz Motevalli-Oliner          Karen O'Rourke, RN, MS, JD          Michael Papi          Stephanie Parker          Camille A Pearte, MD, MPH          Keisha Perrin, RN          Karran Phillips, MD          Sharon Praissman, RN, BSN          Carmen Pratt          Sandie Preiss          Elisha Pulivarti          Lauren Queen          Wanda Ransome          Kimberly A. Rasch          Alice Rease-Pitter          Sabrina Reed          Carmelle Rogers          Nancy Rosenberg          Dorothy Rosenthal, MD          Cynthia Rubio</p>	<p>Karen Ryan          Richard Scott, MD          Laurie Scudder          Gary R Shapiro, MD          Alison Shipley          Jenny L.Siebenhaar          Kathryn Smolinski, LCSW          Donald Sternwachs          Arethusia Stevens          Earl Stoner          Tomeka L. Suber          Raymond Sydnor, II          Pamela Thomas, RN          Estina Thompson, Ph.D., MP          Ulder Tillman, M.D.          Loretta Wall, LCSW          Joan Washington          Fredette West          Kathleen Williams, RN          MSN CR          Keishan Willis-Moore          Rebecca Wiseman, PhD, RN          Melissa Wu, MD, MBA          Gary Wunderlick          Janet Yoder, BSN          Laurie C. Zephyrin</p>
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## Measuring Health Disparities Committee

<p><b>Co-Chairs</b></p> <p>Olivia Carter-Pokras, PhD Thomas LaVeist, PhD</p> <p><b>Subcommittee Chairs</b></p> <p>Nadia Hansel, MD, MPH, Collection, Analysis, and Reporting of Racial and Ethnic Data</p> <p>David Portesi, MPH Integration, Coordination, and Standardization Across Data Systems</p> <p>Richard Skolasky, Other Measures Needed to Understand Racial and Ethnic Health Disparities</p> <p><b>Members</b></p> <p>Doris Addo-Glover, RN, MSN Salliann Alborn Marilyn Algire, RN Sheila Alston Mohamed Atta, MD Loretta Ayd-Simpson Frances Beckles, MD</p>	<p>Tyler Brannen, MHS, CHFP Barbara Brookmyer, MD, MPH David Bush, MD Anne Carlson, MHS Hope Cassidy-Stewart Vasana Cheanvechai Haitao Chu Robin Cuddy, MD MPH Johnia Curtis Elizabeth Daugherty Yolanda Drake Dan Van Dussen Lisa L. Dwyer Angela Echiverri Gary L. Ellison, PhD, M.P.H. Nancy Fink, MPH Fannie Gaston-Johansson Tanya Geiger Zelda Gilliam Gary Green, MD MPH Margo Hall, PhD Haera Han, PhD, RN Dawn E. Hatcher, BSW Intern Jennifer Heller, MD Gwendolyn Henderson</p>	<p>Chiehwen Ed Hsu, PhD Carlessia Hussein Wenke Hwang Mary K. Jackson Julianna Jung, MD Hope Kelaher Niharika Khana, MD Deborah Knight-Kerr Edward Kraus, MD Joan Kub, PhD, RN, CS Shenghai Lai Deborah Larkins, BS LPN Angela Liggins Dwan Little David Mann, M.D. Diane Matuszak, MD, MPH Marianne McNeil Rishi Mediratta Angela Mellerson Janet Mighty Jean Moody-Williams Kisten Nolan, RN BSN Linda Ovitt, MSN David B. Parker, RN, BSN, MHS, PAHM</p>	<p>Ryan Pasternak, MD MPH Khari S. Reed, MHSA Kristin Riekert, PhD Yvette Roane, PA Annabelle Rodriguez, MD Laura Schwartz Mieka Smart Annette Snyder Hal Sommers Deena Speights-Napata Benoit Tano Tiffany Tate James C. Thomas Paul Thuluvath, MD Magdalena Tolea Hector Torres Maria Trent, MD MPH L. Christina Waddler Vicki Walters Gretchen Wartman Stephanie Witt David Wolfe Donna Henry Wright, Esq.</p>
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## **Appendix 6. Recommendations from Stakeholders on the Elimination of Minority Health Disparities**

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### **Access to Quality Healthcare Services**

#### **Goal 1**

Achieve a significant decrease in the number of fiscal barriers that prevent access to quality health services.

#### **Recommendations**

Develop a system of shared responsibility for quality care with key stakeholders such as hospitals, businesses, healthcare insurers, faith-based organizations, government (Medicaid / Medicare) and schools.

Working together, the insurance commissioner and the Medicaid program should identify and remove regulations in the Medicaid program and in commercial insurance that contribute to the high cost of healthcare and do not promote quality. Uniform performance standards for high quality care for the Medicaid program and commercial payers should be created.

Commercial insurers and the Medicaid program should address, as part of their health plan coverage, the transportation barriers to health services for residents in rural or isolated areas.

Offer incentives to counties to provide clinics where patients can receive low-cost, affordable care, including laboratory work, in collaboration with the local health departments.

Encourage the Department of Education to include health education as part of the required curriculum for middle-school and high-school students in Maryland.

Increase the Medicaid eligibility for adults to 200% of the poverty level.

Encourage health related businesses to allocate a percentage of their revenue to provide health promotion and disease prevention services to the community.

Commercial and government programs should establish age-specific mandated screenings throughout the life cycle for adults (similar to childhood mandated health examinations) that promote health and prevent disease. Some mandated benefits already exist in law for commercial insurance coverage for prostate, breast, and colorectal cancer screening.

Include health promotion and disease prevention in health professional training curriculums; address health literacy in continuing education for all health professionals.

Develop standards and criteria for community wellness programs (instead of health fairs), with measurable outcomes and proper medical follow-up procedures.

Launch statewide media campaigns with factual and effective messages to raise awareness about health issues.

Establish a statewide prevention care weekend where all Maryland hospitals and clinics will join in and provide preventive screening to all residents for blood pressure, diabetes testing, eye exams etc.

Increase Medicaid reimbursement rates for physicians as an incentive to keep community-based clinics in underserved areas.

## **Goal 2**

Reduce the systematic barriers that prevent racial and ethnic minorities from obtaining quality health services.

### **Recommendations**

Conduct more public awareness/education about health resources and services. Create a 1-800 number and/or an electronic system to access health resources or expand First Call for Help to include health.

Vertically integrate the primary care system by creating a referral system from primary care to specialty care; establish a 24/7 hotline, staffed by nurses, so that the public can access health information.

Provide incentives for healthcare providers, especially specialty care (e.g. dental care), to serve residents in remote areas of the state.

Utilize telemedicine to expand the availability of services.

Improve the continuity of patient care through programs like the Patient Navigator system and other advocacy services.

Create a holistic healthcare system by treating the whole patient through effective referral and coordination of services.

Implement a medical interpretation program that is standardized by the state and certifies interpreters.

Design preventive health programs that target youth where disparity in incident rate exists for diabetes, obesity, alcohol and substance abuse.

Develop targeted minority community emergency preparedness strategies that consider language and cultural differences

## **HEALTH PROFESSIONAL EDUCATION**

### **Goal 1**

Increase the proportion of racial and ethnic minorities in pre-kindergarten to 12th grade who are exposed to and interested in pursuing health careers.

### **Recommendations**

Review the Maryland State Department of Education comprehensive education conceptual framework and the implementation model to ensure curricula includes

comprehensive health education content, focus on health careers and other exposure for pre-kindergarten to 12th grade, with parental involvement.

The Maryland State Department of Education should be required to incorporate an introduction to health professional careers and opportunities for exploration throughout pre-kindergarten to 12th grade.

The Maryland State Department of Education should be required to include training on counseling about professional health careers for all students and all orientation programs for teachers, counselors and administrators in pre-kindergarten to 12th grade.

The Maryland Department of Health & Mental Hygiene should collaborate with the Maryland State Department of Education to develop a comprehensive program that increases the number of health professionals with a strong foundation in math and science; provides exposure to healthcare professionals, mentoring and financial support for college and graduate school.

Maryland State Department of Education should require cultural diversity and multicultural training as part of professional staff development for educators.

Require the Maryland State Department of Education to include health education as part of the required curriculum for middle-school and high-school students.

## **Goal 2**

Reflect the state's distribution of under-represented minorities in the student body of health professional schools.

### **Recommendations**

Maryland's accreditation boards and institutions for healthcare professionals should be mandated to incorporate health disparities coursework and/or continuing medical education (CME) credits in their licensure and re-licensure requirements.

Pending the adoption of licensure requirements for health disparities coursework and/or CME credits, health professional institutions should be mandated to provide an education program that addresses health disparities in Maryland.

Facilitate the training and preparation of eligible foreign-trained health workers to meet U.S. licensure and certification requirements.

## **Goal 3**

Increase healthcare professionals' awareness and knowledge of health disparities issues.

### **Recommendations**

The Department of Health & Mental Hygiene should participate in statewide activities that provide an opportunity to highlight health disparities issues.

A mandatory requirement for health disparities coursework, offered with blended-learning options, for all healthcare professionals in Maryland to obtain licensing and re-licensing.

The Maryland Department of Health & Mental Hygiene should take a leadership role, in partnership with other stakeholders, in coordinating annual trainings focused on health disparities, using a blended-learning approach, for healthcare professionals.

Include health promotion and disease prevention in health professional training curriculums; address health literacy in continuing education for all health professionals.

Require the state to have a standard for cultural competency training and a mechanism for accreditation for institutions.

Develop medical models that incorporate the cultural and behavioral nuances of American Indians

## **MEASURING HEALTH DISPARITIES**

### **Goal 1**

Assure complete, standardized and accurate data collection and reporting regarding the health and healthcare access and utilization of racial and ethnic minorities in Maryland.

### **Recommendations**

Health data collection systems in Maryland should collect and report racial and ethnic data by the 1997 OMB categories as a minimum, using self-identification of race and ethnicity. This manner of data collection is already required of state government entities (State Government Article, §10-606 (C)). Where feasible, these data systems should collect and report additional racial and ethnic detail (such as primary language and country of origin).

Conduct the necessary methodological research and develop and implement a long-range plan for state surveys to over-sample minority groups and target certain populations and periodically conduct targeted surveys of racial and ethnic groups and their sub-groups.

Agencies should expand existing or establish new registries for certain health outcomes targeted in the elimination of health disparities, including cancer, diabetes, heart disease, stroke and the environmentally-related conditions asthma and lead poisoning. The quality of racial and ethnic data should be improved in existing and future registries.

Publish periodic reports on the health and health outcomes of racial and ethnic groups, and the services received, compared to all races and White populations. Reports that focus on specific groups also are needed.

## **Goal 2**

Improve integration, collaboration and standardization across Maryland health data systems and to improve access to health data and health-data reports.

### **Recommendations**

Adequately support Department of Health & Mental Hygiene efforts to improve health data infrastructure and collection and reporting that allow increased data access and meaningful data analysis for the measurement of health disparities throughout the state. Support small demonstration projects at the local level to provide insight into data collection and reporting methods that may prove successful statewide.

Form a state health-data users committee to assure the inclusion and reporting of race/ethnicity data in data sets used throughout Maryland and to assure that local communities have access to health data. The committee would be a forum for health data project developers to exchange information and best practices and serve to educate other public-health workers who need access to health data.

Create and maintain a searchable, web-based data portal that contains descriptions and links to datasets and related resources and allows or supports the creation of customized reports.

Explore availability of data from community-based groups and faith-based organizations and the role these data can play in understanding health disparities at the community level.

Improve the quality of new and existing health data by:

- a) Establishing procedures to ensure that major health-data sets conform with existing data standards;
- b) Developing a multi-media training program that stresses the importance of proper data procedures to assure that data accuracy and integrity are maintained; and
- c) Developing an audit system to monitor the accuracy and completeness of data collection.

Linkages of data should be used whenever possible, with due regard to proper use and protection of confidentiality, to make the best use of existing data without the burden of new data collection.

## **Goal 3**

Collect additional measures required to identify the root causes of racial and ethnic health disparities.

### **Recommendations**

Health data systems in Maryland should collect the following measures, along with race and ethnicity, to produce an analysis that will promote the understanding of racial and ethnic health disparities:

Demographic measures, Socio-economic position (education, occupation, income),

Location of residence (county, zip code), Acculturation (proxies include primary language, place of birth, time and generation in the United States);

Healthcare access and quality measures, Health insurance status, Healthcare utilization, Healthcare process indicators;

Health status indicators, Risk factors, Morbidity, Mortality.

Data-collection systems designed to evaluate the performance of the healthcare system should:

- a) Collect and report data on healthcare access, healthcare utilization, and healthcare system performance by patient's race, ethnicity, socio-economic status, and where possible, primary language;
- b) Collect representative survey information that provides information on provider and patient attitudes and beliefs regarding healthcare; and
- c) Include questions that allow respondents to additionally identify how they believe their race and ethnicity is perceived by the healthcare system.

Agencies should collect data to monitor the progress toward elimination of health disparities and study the impact of program interventions on minority populations by tracking the exposure to the intervention and measuring intermediate and ultimate health outcomes.

Develop an effective methodology to prevent undercounting of American Indians.

Encourage legislation that recognizes American Indians indigenous to Maryland

## **Identifying Funding Strategies**

### **Goal 1**

Have sufficient resources and the leadership needed to reduce (showing a measurable decline) trends related to health disparities among racial and ethnic minorities in Maryland by the year 2010.

### **Recommendations**

Investigate the possibility of allocating a portion of Thornton dollars (money allocated for the educational needs of Maryland schools) to place onsite mental health providers in local schools to support students and families.

Document the return on investment demonstrating a decrease in healthcare disparities and an increase in the health status of all Marylanders.

Track federal funding cuts that may impede the efforts to eliminate health disparities in Maryland, i.e., Medicaid or Medicare cuts.

Maryland should support the Office of Minority Health and Health Disparities.

Maryland should allocate funds and otherwise support educational, healthcare and regulatory institutions in promoting health careers and in offering cultural-competency training programs.

Healthcare facilities and health-licensure agencies should remove barriers to the licensure and accreditation of qualified minority health professionals whose training was outside the United States.

Maryland should allocate funds for data collection, analysis, and reporting on minority groups who are underrepresented in existing epidemiological reports, e.g. Native Americans, Asians and Hispanics.

Maryland should promote the provision of employee health insurance by small businesses.

The Office of Minority Health and Health Disparities should research private funding opportunities, e.g. foundations and corporations.

Healthcare entities, businesses and educational institutions should utilize internal resources to take actions within their organizations that are designed to eliminate racial and ethnic health disparities.

## **Goal 2**

Develop and expand Maryland's leadership base to support policy changes that will be needed to reduce and eliminate health disparities.

### **Recommendations**

Engage regulatory agencies to ensure that racial and ethnic minorities have equal access to quality healthcare.

Develop state support that will promote legislation to address and fund:

- a) Health disparities research;
- b) Programs to eliminate health disparities.

The Office of Minority Health and Health Disparities should convene an annual leadership forum to promote resource and partnership development among stakeholders committed to eliminating health disparities.

Local leadership from political, business, healthcare, community-based, faith-based and educational entities should collaborate to enumerate and disseminate the financial and public health benefits of eliminating racial and ethnic health disparities in Maryland.

### **Goal 3**

Foster and promote needed collaboration among Maryland partners that will enable a sustainable statewide infrastructure to effectively address Maryland's health disparities.

#### **Recommendations**

Engage the community to gain support in eliminating health disparities, e.g., public awareness campaigns.

Assess the actions taken by governmental agencies and departments to address health disparities.

Assess governmental interagency collaboration.

Assess the cultural and linguistic competence, and the quality of care, that is delivered to racial and ethnic minority groups in healthcare institutions.

Promote best practices and medical models that decrease health disparities and prevent disease (e.g., breast cancer awareness).

Identify the internal systemic barriers in local health departments that may hinder the elimination of health disparities, such as lack of a communications system.

Provide technical assistance for cultural and linguistic-competency training for medical and mental health institutions and their providers.

Provide support for school-based mental health professionals to assess mental health needs among racial and ethnic minority children and their families.

The Office of Minority Health and Health Disparities should promote collaboration among local healthcare institutions, local business, local educational institutions and community groups to develop approaches to eliminating racial and ethnic health disparities in specified geographical locations.

## Appendix 7: Health Disparities Initiatives Across the Nation

Location	Program Description
<b>CANCER</b>	
Maryland	<p>Baltimore City Administration mandated that effective April 2005, all city employees are allowed up to four hours of leave for cancer screenings.</p> <p>The city has forged partnerships with both Mercy Medical Center and the University of Maryland Medical Center to allow employees without a primary-care physician access to screenings.</p> <p>In collaboration with DHMH, five Baltimore City hospitals applied for and received a three-year grant from CDC that makes colonoscopy available each year to 300 under-served Baltimore citizens. The hospitals include Harbor, Sinai, Union Memorial, St. Agnes and Johns Hopkins.</p> <p>The Johns Hopkins Kimmel Cancer Center and five other hospitals throughout the country have received a \$5.4 million grant to help minority Medicare recipients improve their access to cancer screening, diagnostic, and treatment services. The four-year grant, awarded by the federal Centers for Medicare and Medicaid Services (CMS), will target minority populations at increased risk for cancer in efforts to close the gap among Medicare recipients receiving treatments to prevent the disease or cure it early.</p>
California	<p>The California Breast Cancer Research Program (CBCRP) was created by the State Legislature in 1993 to fill gaps not traditionally funded by other research programs to jump-start new areas of investigation that push the boundaries of research and foster new collaborations.</p> <p>In July 2003, the CBCRP announced that it would fund a peer navigator program with WomenCARE and its partner, the Psychosocial Treatment Lab at Stanford University. They will be the first to study the impact of a peer navigator program for breast cancer.</p> <p>Initial findings show that peer navigator programs that use breast cancer survivors to help newly diagnosed patients are a positive model for support and outreach.</p> <p>The program is designed to improve the quality of life for breast cancer patients by pairing Navigators (breast cancer survivors) and Sojourners (newly diagnosed patients), based on similarities in their disease and treatment plans.</p>
Texas	<p>In 2004, CDC supported a multi-year project at the University of Texas Health Science Center at Houston whose primary objective is to identify factors that distinguish women with ovarian cancers that were diagnosed at stages I and II from those with cancers diagnosed at later stages.</p> <p>The study conducted reviews of literature, medical records of all patients diagnosed between 1995 and 1999 and in-person interviews with a sub-sample of women.</p> <p>The University of Texas Health Science Center at Houston is also funded, along with the University of Oklahoma Health Sciences Center, to conduct multiyear studies of how women decide to seek medical care for nonspecific symptoms such as those related to ovarian cancer.</p> <p>These projects are investigating the frequency of symptoms as well as factors associated with decisions to seek medical care, such as 1) attitudes toward health care and health care providers, 2) anxiety or fear related to illness, 3) effects of age, 4) access to care, 5) educational and socioeconomic status, 6) health status, 7) family history of cancer, and 8) knowledge about ovarian cancer.</p> <p>Data on barriers to obtaining care are also being examined.</p>

Location	Program Description
<b>CARDIOVASCULAR DISEASE</b>	
Southeast Missouri Bootheel Heart Health Project	<p>The purpose of the study was to determine whether a community-based risk- reduction project could favorably affect behavioral risk factors for CVD. The program began in 1989 in rural area that is characterized by high poverty, low education levels and inadequate access to medical care.</p> <p>Among the Bootheel survey participants approximately 40% were 55 years and older, almost two-thirds were women, 90% were White, and about 10% were college graduates.</p> <p>Community-based intervention activities, including walking clubs, aerobic exercise classes, heart healthy-cooking demonstrations, blood pressure and cholesterol screenings, and CVD education were conducted in six Southeastern communities.</p> <p>Heart health coalitions were formed in the intervention area to allow for local tailoring of specific intervention projects.</p> <p>No paid media coverage was used though the health coalitions sought coverage of heart and health-related issues in local newspapers.</p> <p>Evaluation involved population-based, cross-sectional samples of adult residents of the state and the intervention region.</p>
Virginia: Partnering With Community Health Centers to Control High Blood	<p>The Virginia Cardiovascular Health Program supports tracking blood pressure testing and outcomes at 17 community health centers by developing a database and supporting data entry for high blood pressure patient chart reviews.</p> <p>The program provides training for community health center practitioners and staff that focus on implementing the guidelines for prevention, treatment, and control of high blood pressure.</p> <p>The Virginia Cardiovascular Health Program is also developing a video to be distributed to community health centers for on-site training to improve practitioners' ability to take accurate blood pressure measurements.</p>
WISEWOMEN: Well-Integrated Screening & Evaluation for Women Across the Nation (Alaska, California, South Dakota, Nebraska, Iowa, Illinois, Virginia etc.)	<p>The WISEWOMAN program is administered through CDC's Division of Nutrition and Physical Activity and provides low-income, under-insured and uninsured women aged 40–64 years with chronic disease risk factor screening, lifestyle intervention, and referral services in an effort to prevent cardiovascular disease.</p> <p>CDC funds 15 WISEWOMAN projects that operate on the local level in states and tribal organizations to provide standard preventive services including blood pressure and cholesterol testing, as well as programs to help women develop a healthier diet, increase physical activity, and quit using tobacco.</p> <p>In the past four years, the project has identified over 3,000 cases of previously undiagnosed hypertension, 3,600 cases of undiagnosed high cholesterol, and more than 500 cases of undiagnosed diabetes.</p> <p>Smoking quit-line referrals and smoking-cessation interventions offered through WISEWOMAN projects have contributed to a 6.4% decrease in smoking among participants. These women would have been unaware of their risk factors if not for WISEWOMAN.</p>

Location	Program Description
<b>DIABETES</b>	
<p>dLifeTV (Nationwide program including: Virginia)</p>	<p>dLifeTV is a television series dedicated to empowering the millions of Americans living with diabetes.</p> <p>The show centers around topics in diabetes care such as new diabetes therapies and products, cooking and healthy nutrition, exercise tips from the experts, and inspirational stories of real people who live every day with diabetes.</p> <p>This American Diabetes Association-recognized program opened just four years ago but has helped over 1,000 people gain knowledge of diabetes self-management.</p> <p>The staff consists of a board-certified endocrinologist, RN-certified diabetes educators, a registered dietitian, and a clinical exercise physiologist who work together to provide patients with top quality care in a rural setting.</p> <p>Patients are offered self-management education classes as well as individualized programs, in English or Spanish, geared at helping patients achieve the best possible outcome in the care of their diabetes.</p>
<p>Michigan</p>	<p>The Michigan Diabetes Control Program began in 1982 with a small grant from the Centers for Disease Control and Prevention (CDC) and the Michigan Legislature.</p> <p>In 1994, the program made gains after being awarded a CDC comprehensive grant and receiving funds from the new state tobacco tax revenues.</p> <p>In 1995, Michigan completed its establishment of a statewide network of six regional Diabetes Outreach Networks (DON). These networks service the entire state and have been in place since 1995 providing diabetes related consumer activities, professional education to health care providers and agencies, and advocacy initiatives. The DON mission is to increase innovative partnerships to strengthen diabetes prevention, detection, and treatment throughout Michigan.</p>
<p>North Carolina</p>	<p>Through federally funded dollars from the CDC, the state of NC seeks to reduce diabetes by implementing a diabetes education program. The North Carolina DPCP coordinates an education program for diabetes patients that is co-sponsored by the state's community college system and the local health departments in the northeastern part of the state.</p> <p>Certified diabetes educators and other local health professionals trained to provide diabetes education teach the classes, which are offered through the community college system.</p> <p>The North Carolina DPCP also provides scholarships for local health department staff to attend the East Carolina University School of Medicine's Clinical Fellowship in Diabetes and sponsors interventions to reach African Americans with diabetes.</p> <p>In a partnership with the General Baptist State Convention and the state's Office of Minority Health, the North Carolina DPCP is conducting programs for African American congregations.</p> <p>Throughout North Carolina, there will be increased awareness of diabetes and its associated risk factors and complications and promotion of prevention strategies. The program provides educational presentations, workshops, and materials and develops public service announcements to radio stations with a predominantly African American listening audience.</p> <p>Build capacity for community interventions. The North Carolina DPCP is working to build local capacity for professional education and community-coalition development using the "Diabetes Today" model. As a result of the program, diabetes education classes are being held in small community hospitals and diabetes support groups are active in medically underserved areas.</p>

Location	Program Description
<b>HIV/AIDS</b>	
Washington, DC	<p>In 1993 the National Institutes of Health (NIH) awarded funds to six sites to establish the Women's Interagency HIV Study (WIHS). The broad purpose is to investigate the impact of HIV on U.S. women. Enrollment began in 1994 and has followed over 2,500 women with visits every six months.</p> <p>Over half of the participants are African American, 24% are Hispanic and 2% represent other minorities.</p> <p>The DC WIHS Consortium is centered at Georgetown University Hospital and includes sites at Howard University, Inova Juniper, Whitman-Walker Clinic and George Washington University Medical Center.</p> <p>The WIHS has engaged the community since the beginning by soliciting input in order to better identify problems and pursue research opportunities. Community involvement through the individual WIHS sites and the Community Advisory Board (CAB) is encouraged to foster women's participation and understanding of research scope and results. (NIH, WIHS Site, GWU Site)</p>
California	<p>Los Angeles Centers for alcohol and Drug abuse: Latino HIV/AIDS Awareness Task Force. The goal is to reduce the number of Latinos who contract HIV/ AIDS by providing educations and awareness classes through the local churches.</p> <p>The task force provides churches with educational flyers, training sessions to educate pastors and health fairs to recognize church involvement.</p>
Falls Church, VA	<p>The Northern Virginia AIDS Ministry (NOVAM) has a community-supported program called Youth Speak. Youth Speak is a six-tiered program that provides education and information about HIV/AIDS to young people in Northern Virginia.</p> <p>NOVAM staff and some peer educators train young people from local schools and organizations to provide accurate information about HIV/AIDS and other STIs through a twelve-hour series.</p> <p>Local United Way Chapters, Fairfax County Health Department, CDC, SAMHSA and the City of Alexandria Community Partnership Fund support the Youth Speak for Human Services.</p>
Maryland	<p>Health Care for the Homeless began in 1985 as a demonstration project funded by the Robert Wood Johnson Foundation, the Pew Charitable Trust and the U.S. Conference of Mayors.</p> <p>The HIV Programs funded by Ryan White Title funds are used to provide services to a large disenfranchised population characterized by suffering from recurring mental health illnesses or chronic diseases.</p> <p>In order to see those clients with more emergent needs first, the staff will triage clients before entering the clinic to actually determine who gets seen first. All programs are conducted with a client-centered focus.</p> <p>The HIV treatment adherence program works with clients to determine appropriate medications for disease management. There are also interdepartmental meetings to discuss clients' overall health and self-management.</p>

Location	Program Description
<b>SYSTEM-BASED INTERVENTIONS</b>	
Washington	<p>Certification of Interpreters or Translators. The department of social and health services provides and pays for certified interpreters for all health services patients including Medicaid patients.</p> <p>The quality of interpreters is ensured by standardized written and oral examinations.</p>
Massachusetts	<p>Department of Health: Hospital translation-services posters displayed throughout hospitals conveying in over 30 languages: “you have a right to a medical interpreter at no cost to you.”</p> <p>Patients and visitors can point to their language and hospital officials will contact the appropriate interpreter.</p>
<b>MANAGED CARE</b>	
Kaiser Permanente (Nationwide)	<p>Kaiser Permanente on the state and national level makes efforts to increase the cultural and linguistic competence of its staff. Six national institutes for culturally competent care focus on the areas of African Americans, Latinos, linguistic and cultural services, women’s health, disabilities and eastern-European populations.</p> <p>Statewide programs, such as in San Francisco, where a facility focuses on providing services to Chinese and Latino patients.</p> <p>The translations offer 14 dialects and languages and ensures that clients are aware of and understand healthcare services.</p>
<b>ACCESS TO QUALITY HEALTHCARE</b>	
DC Healthy Families	<p>Washington DC Medicaid program for low-income families. State children’s health insurance program (SCHIP) funds in DC are used to expand the coverage to parents. Children and parents qualify for Medicaid coverage at the same income level (200 percent of poverty) as a way to get more people insured in the District.</p> <p>Medicaid offers comprehensive coverage at an affordable price particularly to communities of color. As of November 2004, over 9300 adults were covered by the expansion to parents, which is significant for a city as large as DC. (ARC, 2005)</p>
Santa Clara County, California	<p>Children’s Health Initiative uses funds from the tobacco settlement, foundations, tobacco tax and other sources to create a new insurance plan and outreach to get children enrolled. To qualify children must be uninsured and ineligible for Medicaid and SCHIP, live in the country and be below 300 percent of poverty.</p> <p>The program reaches children of immigrants and those with family-income-level restrictions. The program charges premiums and minimal co-pay for some services. By 2002 the initiative reduced the number of uninsured children in the county by 62 percent (California Endowment, 2004). As a result many other counties in California have seen the benefits of the program and have implemented a similar program.</p>

Location	Program Description
<b>HOUSING</b>	
Seattle-King County, Washington	<p>Seattle-King County public health Department has developed a community health worker program that is improving conditions inside the home. The Health Homes program recruits and trains people from low-income neighborhoods to address asthma in their communities.</p> <p>They educate families about asthma and its causes as well as provide bedding covers, vacuums, doormats and cleaning kits to reduce exposure to asthma. The program has decreased asthma symptoms, improved the quality of life for caretakers and reduced emergency visits and hospitalizations.</p>
<b>HEALTHY EATING</b>	
Berkley, California	<p>The Edible Schoolyard at Martin Luther King Jr. Middle School, Berkeley, CA: School-lunch program and gardens demonstrates how school-garden programs teach children how to eat healthier by allowing them to grow their foods for their school-lunch programs.</p> <p>The students grow and cook their own food and learn that eating healthy can be fun and taste good. There are over 3000 gardens in California and they produce positive results for children including an increase in overall grades and individual nutrition.</p> <p>In 2005 the San Francisco Bay district will implement its school-lunch curriculum initiative where students can eat fresh, seasonal and organic food together in the cafeteria.</p>

<b>OTHER STATE PROGRAMS</b>	
<p><b>Illinois</b> – The Department of Public Health has an asthma information program targeting population groups at high risk, including African Americans, Hispanics, the elderly, children, and those with high risk based on environmental factors or family history.</p>	
<p><b>South Carolina</b> – The Department of Health promotes early detection of prostate cancer among African American men through an initiative developed by the Office of Minority Health because of the fact that Blacks have a 10 percent higher cancer incidence rate and a 30 percent higher cancer death rate than Whites.</p>	
<p><b>Nationwide</b> – Minority populations suffer disproportionately high rates of death and disability from cardiovascular disease (CVD). Many state programs to promote cardiovascular health are established for "high-risk populations" or in "geographic areas where there is a high incidence of heart disease and stroke." While not directly addressing racial and ethnic disparities, these approaches are useful in reaching minority patients to improve their health care.</p>	
<p><b>New York</b> – Funded by the Centers for Disease Control, the New York State Diabetes Control Program has resulted in a reduction in diabetes-related hospitalization rates by 35 percent, and decreased lower-extremity amputation rates by 39 percent.</p>	
<p><b>Massachusetts</b> – A statute enacted in 2000 requires a competent interpreter for non-English-speaking patients in emergency rooms. Washington State has set the standards for cultural and linguistic competency.</p>	
<p><b>Using Purchasing Power to Promote Change</b> – Several states, such as California, New Jersey and Colorado require that Medicaid managed-care contracts include antidiscrimination measures, and also require managed-care plans to provide culturally and linguistically appropriate services.</p>	
<p><b>Using Regulatory Processes to Address Disparities</b> – States that have certificate of need requirements can use the process to encourage facilities to expand in underserved minority communities and to address disparities in services between minority and White patients. New Jersey and Washington DC are examples.</p>	

## OTHER STATE PROGRAMS

**Maryland** – This state has created a health disparities center for research on the status of health in minorities at the University of Maryland Medical School. There is also a center for health disparities solutions as a repository of interventions to eliminate racial and ethnic health disparities. This center is a result of collaboration between Morgan State University and Johns Hopkins University.

**California** – This state requires that the regents of the University of California schools maintain data and report about recruitment of medical students from underserved areas.

**Michigan** – The Medicaid program has undertaken a variety of measures, including providing funds to community organizations to target health conditions within specific racial or ethnic groups, requiring managed care organizations to undertake disparities reduction initiatives, and analyzing Health Plan Employer Data and Information Set (HEDIS) data across racial categories to help identify and confront disparities at the system, community, and individual levels.

**New Mexico** – In July of 2005, the state created a public–private partnership that uses unspent CHIP funds to subsidize premiums for low-income uninsured adults. Through the New Mexico State Coverage Insurance (NMSCI) program, three commercial managed-care organizations are offering a low-cost product that provides coverage for adults ages 19 to 64. The health plans are available to uninsured people with family income up to 200% of the federal poverty level who have not voluntarily dropped insurance within the last six months and to employers who have not voluntarily dropped insurance within the last 12 months.

**New Jersey** – In 2005, legislation signed into law by Governor Codey mandates that physicians in the state receive cultural competency training. It is the first state to attempt such an initiative. State policymakers hope that this training will: enable physicians to better treat and diagnose conditions more prevalent in minority communities (e.g., HIV/AIDS, asthma); and improve physicians' abilities to respond to cultural and language barriers and thereby improve communication and interaction with patients.

## Appendix 8. Health Disparities-Related Web Links

Organization	Web Link
Agency for Healthcare Research and Quality (AHRQ), U.S. Department of Health and Human Services	<a href="http://www.ahrq.gov">www.ahrq.gov</a>
The Applied Research Center	<a href="http://www.arc.org">www.arc.org</a>
Center to Reduce Cancer Health Disparities, National Cancer Institute	<a href="http://crchd.nci.nih.gov/">http://crchd.nci.nih.gov/</a>
Delmarva Foundation	<a href="http://www.delmarvafoundation.org">www.delmarvafoundation.org</a>
Diversity Rx	<a href="http://www.diversityrx.org">www.diversityrx.org</a>
Division of HIV/AIDS Prevention and Surveillance, Center for Disease Control and Prevention	<a href="http://www.cdc.gov/hiv">www.cdc.gov/hiv</a>
Healthy People 2010, U.S. Department of Health and Human Resources	<a href="http://www.healthypeople.gov">www.healthypeople.gov</a>
Institute of Medicine	<a href="http://www.iom.edu">www.iom.edu</a>
Maryland Department of Health and Mental Hygiene	<a href="http://www.dhmf.state.md.us">www.dhmf.state.md.us</a>
Maryland Governor's Office for Children	<a href="http://www.ocyf.state.md.us">www.ocyf.state.md.us</a>
Maryland Healthcare Commission	<a href="http://mhcc.maryland.gov">http://mhcc.maryland.gov</a>
Minority Health and Health Disparities, Maryland Department of Health and Mental Hygiene	<a href="http://www.mdhealthdisparities.org">www.mdhealthdisparities.org</a>
National Center for Health Statistics	<a href="http://www.cdc.gov/nchs/">www.cdc.gov/nchs/</a>
National Center on Minority Health and Health Disparities, National Institutes of Health	<a href="http://ncmhd.nih.gov/">http://ncmhd.nih.gov/</a>
National Minority AIDS Council	<a href="http://www.nmac.org">www.nmac.org</a>
Office of Minority Health, U.S. Department of Health and Human Services	<a href="http://www.omhrc.gov">www.omhrc.gov</a>
Office of Minority Health, Centers for Disease Control and Prevention	<a href="http://www.cdc.gov/omh">www.cdc.gov/omh</a>
Surveillance, Epidemiology, and End Results Program, National Cancer Institute	<a href="http://seer.cancer.gov/">http://seer.cancer.gov/</a>
The Commonwealth Fund	<a href="http://www.cmwf.org">www.cmwf.org</a>
The Cross Cultural Health Care Program	<a href="http://www.xculture.org">www.xculture.org</a>
The Henry J. Kaiser Family Foundation	<a href="http://www.kff.org">www.kff.org</a>
The National Center for Cultural Competence, Georgetown University	<a href="http://www11.georgetown.edu/research/gucchd/nccc/index.html">http://www11.georgetown.edu/research/gucchd/nccc/index.html</a>
The Quality Indicator Project	<a href="http://www.qiproject.org">www.qiproject.org</a>
The Robert Wood Johnson Foundation	<a href="http://www.rwjf.org">www.rwjf.org</a>
U.S. Commission on Civil Rights	<a href="http://www.usccr.gov">www.usccr.gov</a>
University of Maryland Statewide Health Network	<a href="http://www.mdhealthnetwork.org">www.mdhealthnetwork.org</a>
Vital Statistics Administration, Maryland Department of Health and Mental Hygiene	<a href="http://www.vsa.state.md.us/vsa">www.vsa.state.md.us/vsa</a>

## Appendix 9: Glossary of Terms

**Access to Healthcare** - The degree to which people are able to obtain care from the healthcare system in a timely manner.

**Age-adjustment** – Age-adjustment is a method of making a fair comparison between two groups regarding a condition whose impact is vastly different at different ages when the two groups have important differences in their age pattern.

**Cultural Competency** – A set of congruent behaviors, knowledge, attitudes and policies that come together in a system or organization or among professionals that enables the system or agency or those professionals to work effectively in cross-cultural situations.

**Disparity** - All differences among populations in measures of health and healthcare.

**Health Disparity** – A higher burden of illness, injury, disability, or mortality experienced by one population group in relation to a reference group; and a healthcare disparity can be described as differences in, for example, coverage, access, or quality of care.

**Healthcare Disparity** – Racial or ethnic differences in the quality of healthcare that are not due to access-related factors or clinical needs, preferences, and appropriateness of intervention.

**Incidence** - The rate at which persons without a disease develop the disease.

**Minority** – A member of the following group: African American, American Indian/Native American, Hispanic/Latino, and Asian/Pacific Islander.

**Minority Health Disparities** - Differences in the incidence, mortality, and burden of diseases and other adverse health conditions that exist among the historic disenfranchised minority groups in the state.

**Mortality rate** - The rate of occurrence of death in a defined population during a specified time interval.

**Morbidity** - The extent of illness, injury, or disability in a defined population.

**Prevalence** - The proportion of the population that has a disease at a particular time.

**Quality of Healthcare** - The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.

**Regular Source of Care** - A healthcare provider where individuals regularly go when they are sick or need medical advice.

**Under-Represented Minorities** - Racial and ethnic populations that are underrepresented in the medical profession relative to their numbers in the general populations.

**Vulnerable Populations** - Groups that have faced discrimination because of underlying differences in social status. Examples of these groups include individuals with stigmatizing health conditions such as mental illness, recent immigrants and refugees, women and men, and incarcerated populations.

## VIII. REFERENCES

1. United States Census Bureau, American Community Survey. *Percent of the total population who are Black or African American alone: 2005*. 2005 [cited 2006 12/28/06]; Available from: [http://factfinder.census.gov/servlet/GRTTable?\\_bm=y&-geo\\_id=01000US&-box\\_head\\_nbr=R0202&-ds\\_name=ACS\\_2005\\_EST\\_G00\\_-format=US-30](http://factfinder.census.gov/servlet/GRTTable?_bm=y&-geo_id=01000US&-box_head_nbr=R0202&-ds_name=ACS_2005_EST_G00_-format=US-30).
2. The Henry J. Kaiser Family Foundation, *Policy challenges and opportunities in closing the racial/ethnic divide in health care. Race, ethnicity, and health care issue brief*. 2005, The Henry J. Kaiser Family Foundation: Washington, D.C.
3. The Sullivan Commission, *A report of the Sullivan Commission on diversity in the healthcare workforce. Missing persons: Minorities in the health professions*. 2004.
4. Agency for Healthcare Research and Quality, *2005 National healthcare disparities report*. 2005, U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality: Rockville, MD.
5. Office of Management and Budget. *Revisions to the standards for the classification of federal data on race and ethnicity 1997* [cited 2006 December 27]; Available from: <http://www.whitehouse.gov/omb/fedreg/1997standards.html>.
6. Israel, B.A., et al., *Review of community-based research: assessing partnership approaches to improve public health*. *Annu Rev Public Health*, 1998. **19**: p. 173-202.
7. United States Department of Health and Human Services, Task Force on Black and Minority Health, *Report of the Secretary's Task Force on Black & minority health*. 1985, Washington, D.C.: U.S. Department of Health and Human Services.
8. Institute of Medicine, *Unequal treatment: Confronting ethnic and racial disparities in health care*. 2002, Washington, DC: The National Academic Press.
9. Centers for Disease Control and Prevention, *Healthy people 2010*. 2000, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention Atlanta, GA.
10. *Maryland Office of Minority Health and Health Disparities* 2004.
11. Kilbourne, A.M., et al., *Advancing health disparities research within the health care system: a conceptual framework*. *Am J Public Health*, 2006. **96**(12): p. 2113-21.
12. National Center for Health Statistics, *Health United States, 2005, with chartbook on trends in the health of Americans*. 2005, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention: Hyattsville, MD.
13. Diversity Trends LLC. *The changing face of the United States*. 2006 [cited 2006 12/12/06]; Available from: [http://www.diversitytrends.com/free\\_diversity\\_articles/impact\\_population.html](http://www.diversitytrends.com/free_diversity_articles/impact_population.html).
14. Center for Immigration Studies. *A snapshot of America's foreign-born populations in 2005*. 2005 [cited]; Available from: <http://www.cis.org/articles/2005/back1405.html>.
15. Collins, F.S., *What we do and don't know about 'race', 'ethnicity', genetics and health at the dawn of the genome era*. *Nat Genet*, 2004. **36**(11 Suppl): p. S13-5.

16. Adler, N.E. and K. Newman, *Socioeconomic disparities in health: Pathways and policies*. Health Aff (Millwood), 2002. **21**(2): p. 60-76.
17. Marmot, M., *The influence of income on health: Views of an epidemiologist*. Health Aff (Millwood), 2002. **21**(2): p. 31-46.
18. Kawachi, I., N. Daniels, and D.E. Robinson, *Health disparities by race and class: Why both matter*. Health Aff (Millwood), 2005. **24**(2): p. 343-52.
19. Applied Research Center and Northwest Federation of Community Organizations, *Closing the gap: Solutions to race based health disparities*. 2005, Applied Research Center and Northwest Federation of Community Organizations.
20. Center for the Advancement of Health, *The forgotten populations: Health disparities and minority men. Facts of life: Issue briefings for health reporters*. 2003, Center for the Advancement of Health: Washington, DC.
21. Williams, D.R. and P.B. Jackson, *Social sources of racial disparities in health*. Health Aff (Millwood), 2005. **24**(2): p. 325-34.
22. Weinstock, B., *Why companies are making health disparities their business: The business case and practical strategies*. 2003, Washington Business Group on Health: Washington, DC.
23. Centers for Disease Control and Prevention. *Answer key: Skin cancer epidemiology and prevention*. [cited 2006 December 21]; Available from: [http://www.cdc.gov/excite/disease\\_detectives/national/skin\\_cancerA\\_2002.htm](http://www.cdc.gov/excite/disease_detectives/national/skin_cancerA_2002.htm).
24. The Henry J. Kaiser Family Foundation. *Glossary*. [cited 2006 December 21]; Available from: <http://www.statehealthfacts.org/cgi-bin/healthfacts.cgi?action=glossary>.
25. Centers for Disease Control and Prevention, National Center for Health Statistics. *Health United States, 2006*. 2006 [cited; Available from: [www.cdc.gov/nchs/hus.htm](http://www.cdc.gov/nchs/hus.htm)].
26. Centers for Disease Control and Prevention. *Vital statistics 2004*. 2004 [cited; Available from: [http://www.cdc.gov/nchs/products/pubs/pubd/hestats/finaldeaths04/finaldeaths04\\_tables.pdf#1](http://www.cdc.gov/nchs/products/pubs/pubd/hestats/finaldeaths04/finaldeaths04_tables.pdf#1)].
27. Centers for Disease Control and Prevention, *Summary health statistics*. 2005, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.
28. Office of Minority Health. *Cancer*. 2002 [cited 2006 April]; Available from: <http://www.omhrc.gov/templates/browse.aspx?lvl=2&lvlID=20>.
29. Lin-Fu, J., *Health research: An Asian/Pacific Islander American perspective*. Journal of Health, 1994. **2**(4): p. 290-298.
30. Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, *National diabetes fact sheet*. 2005, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.
31. The Henry J. Kaiser Family Foundation. *HIV/AIDS policy fact sheet*. 2005 [cited 2006; Available from: <http://www.kff.org/hivaids/upload/3029-06.pdf>].
32. National Center for Health Statistics, *Deaths: Leading causes for 2002, national vital statistics report*. 2005.

33. Centers for Disease Control and Prevention, *HIV/AIDS surveillance in adolescents. L265 slide series (through 2003)*. 2003, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.
34. Martins, D., N. Tarren, and K. Norris, *The epidemiology of end-stage renal disease among African Americans*. Am J Med Sci, 2002. **323**(2): p. 65-71.
35. Alzheimer's Association. *Fact sheet: Alzheimer's disease statistics*. 2006 [cited 2006 December 28]; Available from: <http://www.alz.org/AboutAD/Statistics.asp#1>.
36. National Alzheimer's Association, *African Americans and Alzheimer's disease: The silent epidemic*. 2000, National Alzheimer's Association: Chicago, IL.
37. Clark, C. and C. DeClari, *Earlier onset of Alzheimer's disease symptoms in Latino individuals compared with Anglo individuals*. Archives of Neurology, 2005. **62**: p. 774-8.
38. Institute of Medicine, Committee on Monitoring Access to Personal Health Care Services and M.L. Millman, *Access to health care in America*. 1993, Washington, D.C.: National Academy Press. vii, 229 p.
39. Lewin-Epstein, N., *Determinants of regular source of health care in black, Mexican, Puerto Rican, and non-Hispanic white populations*. Med Care, 1991. **29**(6): p. 543-57.
40. Hadley, J., *Sicker and poorer--The consequences of being uninsured: A review of the research on the relationship between health insurance, medical care use, health, work, and income*. Med Care Res Rev, 2003. **60**(2 Suppl): p. 3S-75S; discussion 76S-112S.
41. Institute of Medicine, Committee on the Consequences of Uninsurance, *Care without coverage : Too little, too late*. 2002, Washington, D.C.: National Academy Press. xvi, 193 p.
42. Kaiser Commission on Medicaid and the Uninsured, *Health insurance coverage in America*. 2005, The Henry J. Kaiser Family Foundation, Kaiser Commission on Medicaid and the Uninsured.
43. National Center for Health Statistics. *National health interview survey*. January-September 2005 April 2006 [cited; Available from: <http://www.cdc.gov/nchs/nhis.htm>].
44. Dubay, L., J. Haley, and G. Kennedy, *Children's eligibility for Medicaid and SCHIP: A view from 2000*. 2002, Urban Institute.
45. The Commonwealth Fund, *Addressing unequal treatment: Disparities in health care*. 2004, The Commonwealth Fund.
46. United States General Accounting Office, *Health care: Approaches to address racial and ethnic disparities. Briefing for Congressional staff of Senator Bill Frist*. 2003.
47. Phillips, R., et al. *The importance of having health insurance and a usual source of care*. September 2004 [cited; Available from: <http://www.graham-center.org/onepager29.xml>].
48. Blanton, M. and C. Hoffman, *The role of health insurance coverage in reducing racial and ethnic disparities in health care*. Health Affairs, 2005. **24**(2).
49. UCLA Center for Health Policy Research, and The Henry J. Kaiser Family Foundation, *Racial and ethnic disparities in access to health insurance and*

- healthcare. 2000, UCLA Center for Health Policy Research and The Henry J. Kaiser Family Foundation.
50. Bertoni, A.G., et al., *Racial and ethnic disparities in cardiac catheterization for acute myocardial infarction in the United States, 1995--2001*. J Natl Med Assoc, 2005. **97**(3): p. 317-23.
  51. Fiscella, K., et al., *Inequality in quality: Addressing socioeconomic, racial, and ethnic disparities in health care*. JAMA, 2000. **283**(19): p. 2579-84.
  52. Doty, M.M. and Commonwealth Fund, Task Force on the Future of Health Insurance for Working Americans, *Hispanic patients' double burden: Lack of health insurance and limited English*. 2003, New York, NY: Commonwealth Fund, Task Force on the Future of Health Insurance. 28 p.
  53. United States Census Bureau. *General demographics statistics: 2005 American Community Survey*. 2005 [cited 9/13/2006]; Available from: [http://factfinder.census.gov/servlet/ADPTTable?\\_bm=y&-geo\\_id=01000US&-ds\\_name+ACS\\_2005\\_EST](http://factfinder.census.gov/servlet/ADPTTable?_bm=y&-geo_id=01000US&-ds_name+ACS_2005_EST).
  54. Mitchell, D.A. and S.L. Lassiter, *Addressing health care disparities and increasing workforce diversity: The next step for the dental, medical, and public health professions*. Am J Public Health, 2006. **96**(12): p. 2093-7.
  55. Institute of Medicine, *In the nation's compelling interest: Ensuring diversity in the health-care workforce*. 2004, Washington, DC: The National Academy of Science.
  56. Saha, S., et al., *Do patients choose physicians of their own race?* Health Aff (Millwood), 2000. **19**(4): p. 76-83.
  57. Cooper-Patrick, L., et al., *Race, gender, and partnership in the patient-physician relationship*. JAMA, 1999. **282**(6): p. 583-9.
  58. Moy, E. and B.A. Bartman, *Physician race and care of minority and medically indigent patients*. Jama, 1995. **273**(19): p. 1515-20.
  59. Komaromy, M., et al., *The role of black and Hispanic physicians in providing health care for underserved populations*. N Engl J Med, 1996. **334**(20): p. 1305-10.
  60. Weil, J. and I.S. Mittman, *A teaching framework for cross cultural genetic counseling*. Journal of Genetic Counseling, 1993. **2**(3): p. 159-169.
  61. Association of American Medical Colleges. Division of Diversity Policy and Programs., *Minorities in medical education : Facts and figures*. 2005, Association of American Medical Colleges, Division of Diversity Policy and Programs: Washington, D.C. p. v.
  62. Cohen, J. *Increasing diversity in the medical workforce is one solid way to prevent disparities in healthcare*. 2005 [cited 4/21/06]; Available from: <http://www.medscape.com/viewarticle/514893>.
  63. Moreno, J.F., et al., *The revolving door for underrepresented minority faculty in higher education*, in *Expanding Opportunities for the People of California*, T.J.I. Foundation, Editor. 2006.
  64. Raymond, W.E. and R.A. Lue. *Shared challenges: Shared solutions*. The Scientist: Magazine of the Life Sciences 2006 [cited 11/30/2006]; Available from: <http://www.the-scientist.com/2006/11/01/s38/1>.

65. Current Population Survey, *National data on health workforce diversity*. 2004, Bureau of Labor Force Statistics.
66. Stewart, M., et al., *Evidence on patient-doctor communication*. *Cancer Prev Control*, 1999. **3**(1): p. 25-30.
67. Weech-Maldonado, R., et al., *Racial and ethnic differences in parents' assessments of pediatric care in Medicaid managed care*. *Health Serv Res*, 2001. **36**(3): p. 575-94.
68. Ladson, G.M., et al., *An assessment of cultural competence of first- and second-year medical students at a historically diverse medical school*. *Am J Obstet Gynecol*, 2006. **195**(5): p. 1457-62.
69. United States Public Health Service, *Mental health : Culture, race, and ethnicity (supplement)*. Reports of the Surgeon General. 2001, Rockville, MD: Department of Health and Human Services, U.S. Public Health Service.
70. Hutchinson, D.S., et al., *A framework for health promotion services for people with psychiatric disabilities*. *Psychiatr Rehabil J*, 2006. **29**(4): p. 241-50.
71. Lu, F.G. and A. Primm, *Mental health disparities, diversity, and cultural competence in medical student education: how psychiatry can play a role*. *Acad Psychiatry*, 2006. **30**(1): p. 9-15.
72. Huang, B., et al., *Race-ethnicity and the prevalence and co-occurrence of Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, alcohol and drug use disorders and Axis I and II disorders: United States, 2001 to 2002*. *Compr Psychiatry*, 2006. **47**(4): p. 252-7.
73. Council on Graduate Medical Education, *Seventeenth report - Minorities in medicine: An ethnic and cultural challenge for physician training: An update*. April 2005, U. S. Department of Health and Human Services, HRSA.
74. Green, A.R., et al., *Interpreter services, language concordance, and health care quality. Experiences of Asian Americans with limited English proficiency*. *J Gen Intern Med*, 2005. **20**(11): p. 1050-6.
75. Cordero, A. and B. Kurz, *Acculturation and the mental health of Latina women in the women, infant, and children program*. *Journal of Women and Social Work*, 2006. **21**(1): p. 46-58.
76. Gorman, B. and J. Read, *Gender disparities in adult health: an examination of three measures of morbidity*. *J Health Soc Behavior*, 2006. **47**(2): p. 95-110.
77. Hirschhorn, L.R., et al., *Gender differences in quality of HIV care in Ryan White CARE Act-funded clinics*. *Womens Health Issues*, 2006. **16**(3): p. 104-12.
78. Correa-de-Araujo, R., K. McDermott, and E. Moy, *Gender differences across racial and ethnic groups in the quality of care for diabetes*. *Womens Health Issues*, 2006. **16**(2): p. 56-65.
79. United States Cancer Statistics Working Group, *United States Cancer Statistics: 1999-2002 incidence and mortality 2005*, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, and National Cancer Institute: Atlanta.
80. United States Department of Health and Human Services, Office of Minority Health. *Men's health - Why you need to act now!* 2001 [cited 2006; Available from: <http://www.omhrc.gov/assets/pdf/checked/Men's%20Health--Why%20You%20Need%20To%20Act%20Now!.pdf>]

81. Blocker, D.E., et al., *Knowledge, beliefs and barriers associated with prostate cancer prevention and screening behaviors among African-American men*. J Natl Med Assoc, 2006. **98**(8): p. 1286-95.
82. Mettlin, C.J., et al., *The national cancer database report on prostate carcinoma after the peak in incidence rates in the U.S. .* Cancer, 1998. **83**(8): p. 1679-84.
83. Iguchi, M.Y., et al., *How criminal system racial disparities may translate into health disparities*. J Health Care Poor Underserved, 2005. **16**(4 Suppl B): p. 48-56.
84. Maryland Vital Statistics Administration, Division of Health Statistics, *Maryland vital statistics annual report 2004*. 2005, Maryland Department of Health and Mental Hygiene, Vital Statistics Administration, Division of Health Statistics: Baltimore, MD.
85. United States Census Bureau. *Maryland data from 2005 American Community Survey*. December 7, 2006 [cited; Available from: [http://factfinder.census.gov/servlet/ACSSAFFacts?\\_event=&geo\\_id=04000US24&\\_geoContext=01000US%7C04000US24&\\_street=&\\_county=&\\_cityTown=&\\_state=04000US24&\\_zip=&\\_lang=en&\\_sse=on&ActiveGeoDiv=geoSelect&\\_useEV=&pctxt=fph&pgsl=040&\\_submen](http://factfinder.census.gov/servlet/ACSSAFFacts?_event=&geo_id=04000US24&_geoContext=01000US%7C04000US24&_street=&_county=&_cityTown=&_state=04000US24&_zip=&_lang=en&_sse=on&ActiveGeoDiv=geoSelect&_useEV=&pctxt=fph&pgsl=040&_submen)].
86. Maryland Vital Statistics Administration, *Analysis of Maryland mortality disparities by jurisdiction, 2001-2003*. 2004, Maryland Department of Health and Mental Hygiene, Vital Statistics Administration.
87. Maryland Cancer Prevention, Education, Screening and Treatment Program, *Annual cancer report*. 2004, Maryland Department of Health and Mental Hygiene, Cigarette Restitution Fund Program, Cancer Prevention, Education, Screening and Treatment Program.
88. Maryland Behavioral Risk Factor Surveillance System. *Maryland behavioral risk factor surveillance system ad hoc reporting tool*. [cited December 7, 2006]; Available from: <http://www.marylandbrfss.org/cgi-bin/broker>.
89. Maryland Office of Minority Health and Health Disparities, *Analysis of U.S. renal data system 1991-2001 pooled*. 2006, Maryland Department of Health and Mental Hygiene, Office of Minority Health and Health Disparities: Baltimore, MD.
90. Maryland AIDS Administration, *The Maryland 2005 HIV/AIDS annual report*. 2005, Maryland Department of Health and Mental Hygiene, AIDS Administration.
91. Maryland Arthritis Project, *Analysis of discharge data of the Maryland health services cost review commission*. 2006, Maryland Department of Health and Mental Hygiene, Center for Health Promotion, Education, and Tobacco Use Prevention, Maryland Arthritis Project.
92. Maryland Asthma Control Program, *Asthma in Maryland 2004*. 2004, Maryland Department of Health and Mental Hygiene, Family Health Administration, Center for Maternal and Child Health, Maryland Asthma Control Program.
93. The Henry J. Kaiser Family Foundation. *Distribution of non-federal physicians by race, 2006*. 2006 [cited 2006; Available from: <http://www.statehealthfacts.org>].
94. Maryland General Assembly, *Statewide commission on the shortage in the health care workforce*. 2006: Annapolis, MD.

95. Maryland General Assembly, *Higher education - Nurse support program assistance fund - Hospital rates*. 2006.
96. United States Census Bureau. *United States Census 2000 data on Maryland Hispanic population*. December 7, 2006 [cited; Available from: [http://factfinder.census.gov/servlet/SAFFIteratedFacts?\\_event=Search&geo\\_id=01000US&geoContext=01000US&street=&county=&cityTown=&state=04000US24&zip=&lang=en&sse=on&ActiveGeoDiv=geoSelect&useEV=&pctxt=fph&pgsl=010&submenuId=factsheet\\_2&ds\\_name=DEC\\_2000\\_SAFF&ci\\_nbr=400&qname=DEC\\_2000\\_SAFF\\_R1010&reg=DEC\\_2000\\_SAFF\\_R1010%3A400&keyword=&industry=](http://factfinder.census.gov/servlet/SAFFIteratedFacts?_event=Search&geo_id=01000US&geoContext=01000US&street=&county=&cityTown=&state=04000US24&zip=&lang=en&sse=on&ActiveGeoDiv=geoSelect&useEV=&pctxt=fph&pgsl=010&submenuId=factsheet_2&ds_name=DEC_2000_SAFF&ci_nbr=400&qname=DEC_2000_SAFF_R1010&reg=DEC_2000_SAFF_R1010%3A400&keyword=&industry=)].
97. Maryland Division of State Documents, *Code of Maryland Regulations (COMAR) Code 10.09.64*.